HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 20, NO. 9, ABSTRACTS 1201-1350. SEPTEMBER 1980

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HOSPITAL ABSTRACTS

Vol. 20 September, 1980 No. 9

HOSPITALS IN GREAT BRITAIN

1201. **Building a private hospital.** *British Medical Journal*, London, 1980, July 26, vol. 281, no. 6235, pp. 291, 292.

This paper is concerned with the problems likely to be faced by local groups and small consortiums trying to build a private hospital in a small provincial town. It is particularly concerned with deciding whether a private hospital is needed and the means of raising the necessary capital finance. The Sussex Private Clinic is cited as an example of a small private hospital which has succeeded because of the cost conscious approach of its founders.

HOSPITALS IN OTHER COUNTRIES

See also Abstract No. 1330

1202. SOURNIA, J. C. Gli ospedalie specializzati nel sistema sanitario francese. **[Specialist hospitals in the French health system.]** *Tecnica Ospedaliera*, Milano, 1980, June, vol. 10, no. 6, pp. 72-75.

France has 70,000 hospital beds in more than a thousand hospitals arranged in a hierarchy with the 28 university hospitals taking pride of place. The author divides the specialist hospitals into: (i) sanatoria; (ii) paediatric and maternity hospitals; (iii) oncology centres, of which there are now 18; and (iv) functional rehabilitation hospitals. A miscellaneous group consists of institutions such as the Quinze Vingts in Paris, founded in the 13th century for 300 blind persons and now a world-famous centre for ophthalmology, and about 100 other small hospitals specializing in ENT, orthopaedics, traumatology, or neurology plus spa hospitals and leprosaria. Two further groups are formed by specialist hospitals for the handicapped, established by a recent Act (1978), and establishments for old people. Some doubt is expressed as to whether most of these specialist establishments are really required today and whether they are cost-effective. It is not possible, however, to make a decision for or against small hospitals on principle; each situation must be judged on its merits.

1203. EICHHORN, S. Zielvorstellungen und Ansprüche im Gesundheitswesen. **[Objectives of, and demands on, health services.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, July/Aug., vol. 21, no. 7/8, pp. 405-410, 413-419.

After attempting a definition of health the author outlines the demands made on health services by three different groups. The patient demands to be restored to health (ignoring the fact that by misuse of tobacco, alcohol and drugs, and by careless driving he himself is often responsible for much ill-health and places an annual burden on the economy estimated to be, in West Germany, between DM1300 and DM1700 per head of population); the health service employee demands the highest possible assured income, and the development of his professional ability; the State and the health

insurance authorities want to limit medical and patient care services to what is absolutely essential, and to ensure that services are provided as economically as possible. If the conflict between these objectives and demands is to be resolved we must: bear in mind that in the final analysis health means the strength to live; orient our demands on the health services on this basis; adjust the supply of health services to the changes in the demand; be aware of the limitations of resources for the health services; bear in mind the necessary harmonization between objectives and the demands of the various groups in society.

1204. CHRISTOFFEL, D. La situation hospitalière en Belgique. **[The hospital situation in Belgium.]** *Hôpital Belge*, Bruxelles, 1980, March/April, vol. 23, no. 144, pp. 37-40.

This is a short commentary on Ministry of Health statistics relating to the 1979 survey of Belgian hospitals. The total number of beds is now 90,291 (52,827 acute), compared with 89,596 in 1978 (52,338 acute), and 80,392 in 1971 (45,828 acute). The increase in the number of beds is due mainly to university expansion (131 beds in the French-speaking University of Brussels, 112 in the Dutch-speaking University of Brussels, and 100 in St. Luc Hospital). The number of psychiatric beds has continued to decline (24,637 in 1979, compared with 24,938 in 1978 and 26,553 in 1971), while the number of geriatric beds continues to rise (from 7,285 in 1971 to 9,884 in 1979). There has been only a marginal change in the public/private bed ratio—37/63 in 1979; 34/66 in 1971. There are 9.17 beds per 1,000 population in the country as a whole, but only 8.41 in Wallonia. There has been a decrease in the number of hospitals with fewer than 100 beds (48 per cent of the total in 1971 but only 30 per cent of the total in 1979), and the average length of stay in hospital has fallen again, to 19.99 days compared with 20.70 in 1978.

1205. BROWN, Lee. **Kuwait adds one thousand beds.** *Middle East Health*, Sutton, 1980, June, vol. 4, no. 6, pp. 34, 35, 37, 39.

Two 500-bed hospitals have recently been opened in Kuwait, at Farwania and Al Adan. By the end of the year two others will be opened at Mubarrak el Kebir and Jahra. Farwania Hospital, like that at Jahra, is a prefabricated building, while Al Adan and Mubarrak hospitals use a more traditional building form. Inside the hospitals are light and airy; public rooms are pleasantly furnished with directional and information signs in Arabic and English. Brief details are given of the bed allocation, staffing and facilities of the two hospitals. At Farwania Hospital, most of the wards are four-bed units, but double and single rooms are also available. There is a nurses' station for each unit of about 20 beds.

1206. SANDERS, Charles A. and BANDER, Kay W. **Multi-institutional arrangements in a teaching hospital setting.** *Health Care Management Review*, Germantown, Md., 1980, vol. 5, no. 2, pp. 25-33.

There is a common assumption that hospitals are wasteful and inefficient because of unnecessary duplication of services resulting from poor planning, unchecked enthusiasm to compete in the medical market place and a permissive reimbursement system; teaching hospitals have been seen as the worst offenders. It has been contended that greater collaboration in planning should result in greater efficiency and some semblance

of controlling costs. This hypothesis has been given legislative mandate in the National Health Planning and Resources Development Act of 1974. The experience of the Boston teaching hospitals in multi-institutional planning is examined. This experience suggests that health planning and legislative mandates per se do not effectively control expansion of services or of cost. The ability of an institution to survive economically is the determining factor, and the demand for a hospital's services is the ultimate arbiter. Unless legislative, regulatory and financial reality insists otherwise, the teaching hospital will pursue its own well-established version of multi-institutional involvement.

1207. BARNETT, J. ROSS., WARD, David and TATCHELL, Michael. **Hospital resource allocation in New Zealand.** *Social Science and Medicine*, Oxford, 1980, June, vol. 14D, no. 2, pp. 251-261.

It has long been recognized that inequalities exist in the availability of primary medical care. Less well known, however, are the distributional inequalities that exist in the secondary sector. This paper examines the relationships between hospital resource allocation, the presence of medical resources and need in New Zealand's 29 hospital boards in 1976. The present system of allocation gives each board an amount equivalent to the previous year's allocation plus additions to cover 'growth', 'stabilization' (inflation) and other miscellaneous adjustments. It is concluded that the present system has not created equal access to individuals of equal need; on the other hand, need for health care and hospital resource allocation are not negatively related. The relationship is, however, tenuous, with bed numbers, political pressure and the system's inertia being the more important determinants of allocation levels. Considerably more research is needed, perhaps along the lines of that currently taking place in Britain with respect to the problems of defining and implementing equity-based allocations.

PLANNING, DESIGN AND CONSTRUCTION

BUILDING COSTS

See Abstract No. 1201

HOSPITAL DESIGN

See also Abstract Nos. 1270, 1302, 1303

1208. BOBROW, Michael and VAN GELDER, Paula. **The well-being of design quality in the health-care world.** *Architectural Record*, New York, 1980, May, no. 5, pp. 107-126.

This paper presents a report on the second biennial health facility design competition, co-sponsored by the UCLA Graduate School of Architecture and Urban Planning, the Graduate School of Architecture and Planning at Columbia University, and *Architectural Record*. Two clear trends were uncovered: (i) the emergence of a new building type—the ambulatory care centre, reflecting a greater orientation toward out-patient care; and (ii) a much greater sensitivity to architectural issues, values and qualities that affect larger scale health care institutions. Brief descriptions, photographs and/or plans are included of the following of the award winning entries: Shoreline Clinic, Southwinds, Essex, Conn.; Eastern Maine Medical Center, Bangor; Comprehen-

sive Ambulatory Care Center, Dayton, Ohio; Olson Pavilion, Health Sciences Building, North Western University Medical Center, Chicago; Terry Lewis Neuromuscular Research Center, Los Angeles; Petersburg (Va.) Psychiatric Institute; new addition at Methodist Hospital of Gary, Ind.; New England Medical Center Hospital, Boston; and Montgomery County Medical Center, Conroe, Tex.

1209. BURROWS, Jane and HUGHES, Peter. **Acute ward planning: an alternative approach.** *Nursing Times*, Basingstoke, 1980, July 24, vol. 76, no. 30, pp. 1322-1323.

Since the publication of the Nuffield Trust work on ward plans in the 1950s, almost all ward layouts in England have consisted of six-bed bays, with the beds parallel to the corridor and external wall. Recently the six-bed bay has come under some criticism. As a result of considering various alternatives before adopting a nucleus-type ward, a new Y-shaped ward plan was developed. It was not adopted for a number of reasons related to the overall site development policy. However, it is a valid alternative to the nucleus ward plan and seems to answer a number of criticisms of the current six-bed bay plans. The two arms of the Y contain, at their far end, a day room, toilets and fire escape stairs. Next comes a 12-bed ward in each arm, with a nurses' station at the junction of the three parts of the Y. The 'leg' contains four single rooms and the ancillary accommodation using a twin corridor arrangement. The advantages and possible disadvantages of the design are listed. A plan of the ward is included.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

1210. HUREZ, L. and others. Le Centre Rene Goffin. **[The Rene Goffin Centre.]** *Hôpital Belge*, Bruxelles, 1980, March/April, vol. 23, no. 144, pp. 20-28.

The Rene Goffin Centre at the Tivoli Hospital in Liège was inaugurated in December 1979. A short description of the facilities provided in the Centre is followed by extracts from speeches made at the inaugural ceremony by the chairman of the board of governors and by three members of the staff, in which the latter describe their work. The Centre comprises three departments: chemotherapy, radiotherapy, and radiophysics, all arranged around shared structures for reception, records, and library. The chemotherapy unit has day-hospital facilities only. The radiotherapy unit has facilities for contact therapy for the treatment of skin cancer; it can provide cobalt and radium therapy and has a linear accelerator. The radiophysics unit has a therapy simulator and a computer enabling individual doses to be calculated very quickly. Photographs of the linear accelerator and the simulator accompany the description.

EXTENSIONS AND RECONSTRUCTIONS

1211. OMENS, Robert S. **Building and remodeling: what you need to know and do before construction begins.** *Hospital Forum*, San Francisco, Calif., 1980, June, vol. 23, no. 4, pp. 10-12.

Prior to making any construction decisions, a hospital should set down its immediate and long-range goals and needs as a basis for a master plan for the next five to 10 years. Budgetary estimates and suggested financial strategies follow. When these questions

are resolved, an evaluation of existing facilities can begin in order to determine whether to rebuild or remodel. This assessment should include: site location; present and projected capacity; general condition of the facility; compliance with code standards; availability of utilities and central plant capacity; and parking facilities and building-to-ground ratio. The next logical step is to determine project management, including the selection of an architect. It is suggested that hospitals use a request for proposal that calls for the following information: experience in comparable projects; staff availability; specific experience; architectural fee; time required for architectural work; key staff; consultants; cost control; payment schedule; and energy conservation. A schedule of headings for a project cost estimate is included. Criteria are made for improving cost control during construction.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract Nos. 1291, 1292, 1321

1212. MARINO, E. and MUTTI, A. Sistema ambientale e sistema tennologico nella edilizia ospedaliera. **[Environmental systems and technological systems in hospital construction.]** *Tecnica Ospedaliera*, Milano, 1980, June, vol. 10, no. 6, pp. 21-37.

This is a detailed design project for a hospital which was awarded a prize in the Faculty of Architecture in Rome in 1977. The traditional patient's room is replaced by so-called ordinary and extraordinary intensive care (IC) units. The ordinary IC unit is monitored around the clock from the monitoring room, with occasional direct checks; the extraordinary IC unit is monitored directly. Both types of unit have equipment suitable for all types of treatment. The design is based on the assumption that the function and organization of the hospital will change in the course of time; maximum scope for flexibility and adaptability is therefore provided.

1213. VONA, C. and CIOFFI, G. Il reparto di malattie infettive dell'ospedale di Frosinone. **[The isolation unit in Frosinone Hospital.]** *Tecnica Ospedaliera*, Milano, 1980, June, vol. 10, no. 6, pp. 78-85.

Following a serious outbreak of typhoid in the area in 1968, a temporary isolation unit had to be established in Frosinone Hospital. A new 37-bed department has now been completed on the top floor of a new block in this hospital. The unit is intended to serve a population of about 200,000; the annual number of cases of infectious diseases in the area has fluctuated between 665 (1974) and 1968 (1978). The unit is completely isolated from the rest of the hospital; each room has a maximum of three beds and has its own WC, basin, and bidet. The rooms have windows on to an external visitors' corridor, and an internal telephone system links rooms and corridors. The unit has a small theatre, a laboratory, disinfection unit, incinerator, and kitchenette. Meals are brought up from the main kitchen on heated trolleys.

WARDS AND PATIENTS' ROOMS

1214. LUDWIG, A. Raumkataster für ein Krankenhaus. **[Inventory of hospital rooms.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 3, pp. 60-62.

The system of numbering rooms and listing their contents is explained, giving the

new Cantonal Hospital at Baden, Switzerland as an example. Each room is identified by three separate figures: a two-digit number for the building, a two-digit number for the floor and a three-digit number for the room. For each room a four-page inventory sheet is prepared. Page one gives the department, room name, inventory number, and date; page two shows a ground plan and measurements; pages three and four give the list of equipment. The paper is illustrated with diagrams, plans and specimen lists of equipment.

ENGINEERING SERVICES

COMMUNICATION SYSTEMS

See also Abstract No. 1311

1215. DUMON, G. Keuze van de apparatuur: de telefooncentrale. **[Choice of equipment: the telephone exchange.]** *Hospitalia*, Brussel, 1980, April/June, vol. 80, no. 2, pp. 105-107.

The paper examines the requirements for hospital telephone systems and distinguishes three basic types. The first requirement is for long-distance conversation. Secondly the semi-electronic hospital exchange provides for additional functions built into or attached to the equipment and connected to a hospital computer for registration and storage of data if desired. A third level would be a fully electronic central exchange which receives, processes and stores information to be passed on to the hospital computer. The electronic exchanges aid rationalization of many hospital functions, keep down costs and promote safety by: (i) time saving facilities such as short codes for certain numbers, direct outside calls from house telephones, etc.; (ii) control facilities such as devices for fire detection, safety doors and clock registration; and (iii) storage and processing of data to be applied, e.g. in analysis of occupancy and waiting times, regular passing of information, etc. The author points out that though electronic equipment constantly increases in capacity, prices are constantly falling. To advise on installation in hospitals, however, requires expert knowledge of hospital organization in general, of the hospital concerned in particular, and of the general evaluation of techniques in industry.

1216. LOCCI, P. Informazione e comunicazione nell'ospedale moderno. **[Information and communication in the modern hospital.]** *Tecnica e Metodologia Economale*, Firenze, 1980, March/April, vol. 29, no. 2, pp. 119-121.

The hospital's telephone system is an essential tool for the efficient management of the institution and the telephone exchange is one of the focal points of the modern hospital. The telephonists' work is difficult and stressful. Management can improve their working conditions by employing sufficient staff, providing them with a comfortable environment, sufficient lines, and advanced technology. The author suggests that some vocational training should be offered to the telephone exchange operators; he outlines the content of a part-time course which could run for 20 weeks, three hours a week. The course would include general studies (20 hours), hospital

regulations (10 hours), sociology of communication (five hours), professional ethics (10 hours) and the psychology of communication (15 hours).

ENERGY CONSERVATION

1217. **The board's role in energy management.** *Trustee*, Chicago, Ill., 1980, Jan., vol. 33, no. 1, pp. 9-13.

This is one of a series of self-instructional units for members of hospital governing boards. As large users of energy, hospitals are in a unique position to reduce national fuel consumption totals. Energy conservation is also extremely advantageous financially. The board has an all-important role to play in supporting a hospital commitment to energy conservation and in seeing that that commitment is sustained. An energy management programme consists of two major components: (i) planning for efficient energy management at three levels—long-term, annual and emergency; and (ii) specific energy conservation strategies, including operations and maintenance changes, refitting or redesigning existing systems, and educational or awareness programmes for those using the facility. A system of accountability should be established, including a comprehensive energy accounting system that monitors and tracks the hospital's use of energy. The board has a twofold responsibility: creating policy and encouragement of staff. An energy checklist and notes on resources to help hospitals are included.

VENTILATION AND AIR-CONDITIONING

1218. THOMAS, Günter. Sind Operationseinrichtungen nach DIN 1946/4 ausreichend infektionssicher? **[Are operating installations in accordance with German standard DIN 1946/4 sufficiently infection-proof?]** *Krankenhaus*, Stuttgart, 1980, July, vol. 72, no. 7, pp. 252-258.

A detailed study of air-conditioning installations indicates that the high-turbulence dilution ventilating system with HOSCH filters, as recommended in the German Standard DIN 1946, does not give adequate protection against wound infection where such major operations as joint replacements, accident surgery and transplants are concerned. It is shown that the vertical laminar flow system best meets the requirements of a practically germ-free air supply. Horizontal laminar airflow also achieves a high degree of purity as does the 'Keimstop' ['germ stop'] system. The latter has the added advantage that it can be built into the existing DIN 1946 installation at a relatively low capital cost. It is stressed that it is cheaper to install adequate air-conditioning in operating theatres than to meet the costs of hospital stay, loss of work and invalidity resulting from wound infections.

1219. PIETRI, P. L'emploi des flux laminaires en chirurgie vasculaire. **[Use of laminar air flow in arterial surgery.]** *Techniques Hospitalières*, Paris, 1980, May, vol. 35, no. 416, pp. 66-68.

Experience has shown that a vertical laminar flow system is more effective than a horizontal flow system, but the former is costly and difficult to install in an existing theatre. The author describes a simplified laminar flow system which has been installed

in the Ospedale Maggiore in Trieste. The air flows across the operating field but instead of being drawn in at the opposite wall it returns round the outer edges of the room to inlets on either side of the outlet tower. The installation of this relatively inexpensive system has led to a marked reduction in the number of prosthesis infections in the hospital.

1220. SOOTS, G. and others. Influence du flux laminaire sur la contamination et l'infection en chirurgie sous circulation extracorporelle. **[Influence of laminar flows on contamination and infection in surgery with extra-corporal circulation.]** *Techniques Hospitalières*, Paris, 1980, May, vol. 35, no. 416, pp. 69-74.

The number of microbes in the air and the incidence of contamination were compared in four series of patients (824 in all) undergoing surgery which involved the use of a heart-lung machine. The type of air conditioning in the theatres was different in each series: (i) conventional non-filtered vortex, installed in 1966 and not cleaned since; (ii) a similar system which had been renewed in 1976; (iii) the same theatre as in (i) but equipped with filters and a horizontal laminar flow without an intake on the opposite wall; (iv) a theatre in a new hospital where there is an integral horizontal laminar flow system. The results in regard to post-operative infection were spectacular in (iv), and much better in (iii) than in (ii), which in turn was better than in (i). The complications of surgery were greatly reduced and, in particular, there were no fatal cases of mediastinitis with systems (iii) and (iv), whereas one out of two cases of mediastinitis in (i) was fatal. The bacteria which were most frequently identified during blood tests post-operatively were *Staphylococcus alba*. The results of the study are presented in a series of seven tables.

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See Abstract No. 1227

SANITARY EQUIPMENT AND FITTINGS

1221. PAGE, Magdalen and FEENEY, R. J. **Measurement and assessment techniques for WC and bath aids for the disabled.** *Nursing Times*, Basingstoke, 1980, Aug. 7, vol. 76, no. 32, pp. 1404-1408.

This paper presents the results of studies carried out at the Institute for Consumer Ergonomics, Loughborough University of Technology, to determine the best positions and arrangements of aids for use by disabled people. It covers: height of WC seat; position of WC support rail; and heights of bath rim and bath seat. Formulae for determining these measurements are included, as are photographs and diagrams.

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

1222. WEEKS, Ronald. **Interior design: hospitals.** *Architectural Review*, London, 1980, July, vol. 168, no. 1001, pp. 46-56.

The problems associated with the interior design of hospitals are discussed, with

particular reference to the design process, financial constraints, trends in hospital design, and colour and lighting. The intention to provide considered, controlled and complementary internal environments in hospital development is essentially no different from the aims for any other type of building. But in a hospital the project and design teams are large and the co-ordination requirements so complex that these have tended to be the focus of attention after the initial concept, the detailed design and its expression in the final fitting-out of the building being only part of that process. It has consequently been subjected to secondary consideration after all the demands of the engineering and cost constraints have been met, although research shows just how important colour schemes and lighting, for example, can be. The architect and interior designer can now present concepts for the internal environment of hospitals in a more reasoned and substantial manner than before. Photographs and plans of hospitals at Hvidore and Herlev, Copenhagen, are used as examples.

BEDS, COTS, ETC.

1223. Les lits fluidisés. **[Fluidized beds.]** *Hospitalisation Privée*, Paris, 1980, March, no. 201, pp. 8-11, 14-16.

Following an experiment with two fluidized beds, which are invaluable in the prevention of bed sores, a clinic at Merignac established a special unit which has no fewer than 32 of these beds. This had a considerable impact on the clinic financially because there was no increase in the charges to patients, staff at all levels required special training, and additional maintenance staff had to be employed. Initially the average length of stay was prolonged because the first patients, who would otherwise have died, recovered when transferred to a fluidized bed but took a long time to make a complete recovery. Once this first group had left, however, subsequent patients spent a shorter time in the clinic because they did not develop bed sores. The technical features of fluidized beds are described here and their advantages and disadvantages examined. The latter include a tendency for the patient to become dehydrated and for some very old patients to behave as if they were in a cocoon and regress psychologically. Costs of maintaining and operating a fluidized bed average seven French francs a day.

MEDICAL EQUIPMENT

See also Abstract Nos. 1245, 1255, 1266, 1277, 1297

1224. GEISSLER, D. H. Betriebskonzeptionen moderner Röntgeninstitute: Am Beispiel einer medizin-technischen Planung. **[A modern X-ray institute: an example of medical technology planning.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 1, pp. 63-67.

A private X-ray unit, housed on the ground and sub-ground floors of an already existing commercial and residential block, is described. The ground floor houses nine X-ray machines (in six rooms) an ultra sound diagnosis room, an endoscopy room, a sterilization room and other ancillary rooms and offices. The sub-ground floor houses a radiotherapy department (containing a deep therapy unit and a surface therapy unit). A nuclear medicine unit with a gamma-camera and isotope laboratory is also planned.

The paper includes details of all equipment and safety measures. There are plans of each floor and two photographs of equipment.

1225. Problematik der Medizintechnik. **[Problems in medical technology.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 1, pp. 25-32, 35-42, 45.

At the Swiss Hospital Congress held in Basel in October 1979 a series of papers was presented on problems in medical technology. The titles of the papers reproduced here are as follows: the ethical and economic limits of medical technology; medical radiology; the economic and medical limits of medical technology from the point of view of the laboratory; working in medical technology today; medical technology from the point of view of the hospital administrator; the political boundaries of medical technology; and medical technology and the new services of the Swiss Hospital Institute.

1226. DEUTSCH, Erwin. Der Umgang mit medizin-technischen Geräten—straf- und zivilrechtliche Konsequenzen. **[The handling of medical technology equipment: legal implications.]** *Krankenhaus*, Stuttgart, 1980, July, vol. 72, no. 7, pp. 266-268.

The aspects of the criminal and civil legislation of West Germany which are concerned with the use of medical technology equipment are outlined, with references to the relevant Acts. They are dealt with under the following heads: care in handling equipment; preparedness for any possible incidents; the employment of competent staff; incidents not liable to legal action; and the exemption of subordinate staff from liability.

1227. MARCHESI, G. and BARNI, M. Sicurezza, gestione e manutenzione degli impianti elettromedicali negli ospedali. **[Reliability, management and maintenance of electrical medical equipment in the hospital.]** *Tecnica Ospedaliera*, Milano, 1980, June, vol. 10, no. 6, pp. 41-44.

An attack is made in this article on current attitudes to the maintenance of electrical equipment in Italian hospitals. The persons responsible for technical services are generally civil engineering specialists and they tend to consider management and maintenance as a secondary activity. The authors call for a full-scale re-organization of the existing system.

LABORATORY EQUIPMENT

See also Abstract No. 1329

1228. PRICE, L. W. **Hazards, safety and operating difficulties with centrifuges and rotors.** *Laboratory Practice*, London, 1980, July, vol. 29, no. 7, pp. 739-743.

This paper first considers the older designs of bench centrifuge, many of which are still in use. They should at least be shielded, though the preferable course of action is to scrap them. Misuse and abuse of floor-standing centrifuges can be categorized under the following main headings: forcing the lid lock so as to open the lid and quickly stop the rotor by 'hand'; failure to secure or correctly install the rotor to the drive shaft; failure to tighten lid of the rotor; failure to balance tubes or evenly load the rotor; mishooking of buckets on swing out rotors; overstressing the rotor; and allowing corrosion. The correct use of rotors, tubes and caps, and rotor and tube cap cleaning are outlined. Operating problems include: the life of a rotor; recording ultracentrifuge

runs and hours; unusual noises; failure to start; failure of chamber door to open; and escape of metal fragments if a rotor fails. Finally, the dangers from biologically hazardous samples are mentioned.

1229. NEWSOM, S. W. B. **Safety cabinets encounter British Standards.** *Journal of Hospital Infection*, London, 1980, March, vol. 1, no. 1, pp. 11-13.

The British Standard for microbiological safety cabinets (BS5726:1979) has been published and units designed to it are being made. Safety cabinets have been divided into three classes: (i) open fronted, exhaust; (ii) open fronted exhaust, flushed by a downward flow of unidirectional air; and (iii) enclosed exhaust cabinets. This paper reviews the specifications, making a number of points regarding the use of cabinets designed to them, and discusses the choice of cabinets for various purposes.

ELECTRONIC EQUIPMENT

See Abstract No. 1266

STAFF GENERALLY

RECRUITMENT

See Abstract Nos. 1244, 1247

SALARIES AND SUPERANNUATION

1230. Onderzoek naar structuur van de honorering van medische specialisten. **[Study of the structure of medical specialists' honoraria.]** *Ziekenhuis*, Utrecht, 1980, June 18, vol. 10, no. 12, pp. 356-361.

This paper discusses an interim report of a national survey among medical specialists. Findings will be used in the Dutch government's prices and incomes policy, comparing real earnings with a norm. Questions on finance were answered by the specialists' accountants and medico/functional questions by the specialists themselves. The report recommends a clear, comprehensive salary structure, taking account of increasing costs. A large number of criteria for judging pay are set out. Suggestion for realignments in work and leisure are made which have some practical implications. Amongst the recommendations are the following: (i) training to become less academic; (ii) a different remuneration for different types of specialties; (iii) a shift from clinical to polyclinical treatment; (iv) clear definition of specialists' tasks; (v) abolition of different remuneration for privately insured and national health patients; and (vi) abolition of the system of transfer of practices.

STAFF MANAGEMENT

See also Abstract Nos. 1250, 1251, 1254, 1331, 1348

1231. GRYPDONCK, M. De achtendertigurige week: een probleem of een buitenkans? **[The 38-hour working week: a problem or an opportunity?]** *Hospitalia*, Brussel, 1980, Jan./March, vol. 80, no. 1, pp. 12-14.

The reduction of the 40-hour working week to 38 for hospital nursing staff tends to

polarize the discussion between staff wanting more free time and management wanting to limit the loss of care. As the 40 hours are not always worked to full capacity and both parties aim at obtaining the best working conditions, the paper suggests that they should come together and examine whether part of the present established routine could be shed or changed. For instance: (i) temperature rounds are frequent but often not necessary for many patients; (ii) routine taking of blood samples could be reduced; (iii) bed baths at set hours are often more tiring than refreshing for the patient; (iv) serving of meals for ambulant patients could be avoided with a cafeteria system; and (v) flowers need not be removed at night. Could some activities be carried out at different times, at different places, be postponed or left altogether? Could patients do more for themselves or their visitors give them a helping hand? Could night staff do some administrative or other work? Work only carried out when it is necessary would be more directed towards patients' individual needs. This process requires thought and planning but the two hours reduction may well be an opportunity to achieve a more balanced distribution of real work and a more patient oriented working atmosphere.

1232. GIRAUDET, Pierre. 1981 Aménagement et réduction de temps de travail. **[The 1981 plan and reduction of working hours.]** *Hospitalisation Privée*, Paris, 1980, May, no. 203, pp. 32, 34-36, 38, 40, 42, 44-46, 48.

Because of the impact that any changes in working hours would have on private health care establishments, '*Hospitalisation Privée*' has published the text of the Giraudet report to the Government in full. Giraudet's main recommendation is that every worker should have four weeks' paid holiday a year, as at present, in addition to public holidays, plus a further 40 hours which cannot be tacked on to his or her main holiday. He recommends a 40-hour working week, with a 39-hour week for persons employed on particularly arduous work. Only eight hours' overtime should be worked per week. The Government is likely to accept Giraudet's recommendations and try to implement them by 1983 at the latest. This will affect health care establishments' costs, particularly in regard to laundry and night staff, who would be included in the 'particularly arduous' category.

1233. CARVER, Carol and CROSSMAN, Linda J. **Job sharing: it may be right for you.** *American Journal of Nursing*, New York, 1980, April, vol. 80, no. 4, pp. 676-678.

The authors, both with similar nursing backgrounds, describe how they shared the administrative and direct service functions of the Marin Senior Day Services, Marin Co., Calif. Both provided in-service training for assistants and spent half their time on site and the other half describing the project to the community or attending to paperwork. Time on site was spent supervising the welfare of the patients. The advantage to the employee of job sharing is the flexibility of working hours and to the employer, the presence of two rather than one employee to generate new ideas. However, the employment of two persons for one full-time post involves higher employer expenses. The advantage to the nursing profession of job sharing is that it offers nurses with family commitments the opportunity to stay active in nursing. The most important requirement of job sharing is good communication and an accurate sharing out of individual abilities. All those working with the job sharers must know which aspects of the position are dealt with by which job sharer.

STAFF RELATIONS

1234. BUCHMANN, K. E. Skizze zum Klinikbetriebsklima. **[The hospital working environment.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7, pp. 402-406.

The working climate in a hospital is discussed with special reference to four problems which are given the following headings: a democratic institution with a non-democratic leadership; conflicting interests and the fight for solidarity; lack of trust among the staff; and bureaucracy versus treatment. Suggestions for improving the working climate include the following: more open discussion; those concerned should take part in decision-making; clear demarcation of duties and responsibilities; proper exchange of information; equal treatment for the worker, the salaried employee and the official; increased responsibility for the individual staff member; improved sharing of responsibility; and smaller, partly autonomous areas.

STAFF TRAINING

See also Abstract Nos. 1246, 1249, 1252, 1254

1235. NELL, H. W. and OSSENDORP-WILLEMS, M. Onderzoek naar de validiteit van de theoretische opleiding voor ziekenverzorgenden. **[An inquiry into the validity of the theoretical training given to nurses.]** *Ziekenhuis*, Utrecht, 1980, June 4, vol. 10, no. 11, pp. 326-328.

It has been noticed that in nursing homes the condition of many patients, particularly their mental capacity, deteriorates rather than improves. This process manifests itself in apathy, loss of initiative, depression and poor self-image. To find out whether there was a discrepancy between theoretical training and experience on the wards a survey was carried out in four nursing homes among 136 nurse learners, who had received theoretical training in two outside training schools not connected with the homes. A control group consisted of 20 qualified nursing staff. It was found that most staff experienced this discrepancy, but that over 70 per cent of the nurse learners were satisfied with their theoretical training. Of the control group a majority was of the opinion that medical and psychological subjects, social backgrounds and speech therapy were insufficiently taught. Most nurse learners thought that patients' wishes were often hampered by nursing home rules and that the living environment in the homes should be changed; this was not the view of the trained staff. The paper suggests that the cause of the discrepancy lies rather with the nursing homes where there is conflict between practical application of theories and the interests of the home. Better co-operation could be achieved by an increase in instructors with nursing home experience, more contact between training school and nursing home and more explanation of their actions by nursing homes to their staff and patients.

1236. FERGUSON, Marion. Probleme und Aufgaben des Krankenpflegeunterrichts-personals in Grossbritannien. **[The problems and tasks of nurse tutors in Great Britain.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7; supplement, pp. 5-9.

In Great Britain nurse tutors do not remain very long in nurse training schools

(they tend to look for professional and financial advancement) and there is general dissatisfaction with specialist training for tutors. Details are given of the existing training facilities and the examinations at specialist schools and at universities, as well as an account of their development since 1919 when the General Nursing Council was set up. The new nurse training curriculum which is to come into force in 1981 (a three-year course will lead to a Diploma in Nursing) indicates basic changes in the training of nurse tutors. There will be movement away from the purely scientific concept of theoretical medicine towards the scientific basis of actual nursing. The new diploma represents a return to the importance of basic nursing and patient-centred care. The problem remains of agreement on the definition of the training objectives and of what actually constitutes nursing.

1237. SLAJMER-JAPELJ, Majda. Die Ausbildung der Krankenschwestern in Jugoslawien. **[The training of nurses in Yugoslavia.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7; supplement, pp. 9, 10.

After their eight-year period of compulsory schooling potential nurses in Yugoslavia enter a school for the medical professions. They first take a two-year general course, which includes some basic medicine, after which (at an average age of 17) they serve as nursing assistants in hospitals or the home nursing service. After another year of practical work they become, at 18, members of a nursing team. Those who wish to qualify further do two years' training in hospital and home nursing. This basic training can be followed by a higher course leading to a nursing diploma or by specialist training in intensive care, psychiatry, theatre work or industrial nursing. Basic training can also be taken at evening schools: this is suitable for those who had earlier given up training because of marriage or other reasons.

1238. KELZ, Heidelinde. Derzeitige Situation der Ausbildung von diplomierten Krankenschwestern und -pflegern zur Unterrichtskraft in Österreich. **[The present situation in the training of nurses as tutors in Austria.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7; supplement, pp. 10-12.

It is possible in Austria for a qualified nurse with three years' post-qualification experience to be accepted as a nurse tutor in a training school without further training. In addition qualified nurses can train as tutors at three schools: the Modling Academy for Advanced Nursing (1,000 hours teaching); the Vienna General Hospital (663 hours teaching); and the Training Centre for Medical Technology and Nursing, Klagenfurt Hospital (450 hours training). These existing facilities are regarded as being only transitional until better ones are available. More highly qualified tutors are needed and it should be possible for additional further training facilities to be set up.

1239. KROL, Marianne van Driel. Ausbildung der Lehrkräfte für Krankenpflegeschulen in den Niederlanden. **[The training of nurse tutors in the Netherlands.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7; supplement, pp. 12-15.

The whole system for the education of nurses in the Netherlands, from entry into a primary school at age six, through primary and secondary schools to nursing schools is described and illustrated by a diagram. There has been training for nurse tutors since 1957 which has been given statutory recognition since 1967, although as recently as 1970

50 per cent of nurse tutors had not been trained to teach. There are today two types of training for nurse tutors. There is a two-year 'interrupted' course during which nurses actually work as tutors and a one-year course during which there are two practice periods in a nursing school.

1240. LIEBSCH, Holger. Aufgabe und Zielsetzung des Unterrichtenden in der Krankenpflege und Kinderkrankenpflege. **[The task and objectives of tutors in nursing and children's nursing.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7; supplement, pp. 2-4.

One of the most important tasks for nursing education must be to impress on the coming generations of student nurses the need for nursing care based on the individual needs of patients and to guide them in the practical aspects of this concept. Current teaching methods and practice are outlined and found to some extent wanting. Among proposals put forward for improvements are the following: nurse tutors should be relieved of much administrative work; a proper tutor/student ratio should be obligatory; the training of tutors should be improved; the ratio of students to qualified nurses on wards should be such that students get proper practical experience and training; the theory content of nursing education should be reduced in favour of the practical; training and examining should be standardized throughout the Federal Republic; and more attention should be paid to training in teaching methods and in psychology.

1241. Das Krankenhaus im Spannungsfeld: Zwischen Dienstleistung und Lehre. **[The hospital: a place for the care of the sick and for training staff.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 3, pp. 27-50.

It is absolutely essential for hospital staff, although qualified, to undergo regular in-service training to enable them to keep up to date. Hospitals also have to train their own staff in cases where the labour market and the educational institutions are unable to supply suitably qualified staff. This series of papers discusses various aspects of in-service training. The titles are as follows: fundamental aspects of the hospital's training commitment; pay more attention to the future; cardiac training in the hospital; further training in the hospital, a necessity or a burden?; the concept of in-service further training; in-service further training; and a professional association's concept of further training.

STAFF WELFARE

See also Abstract Nos. 1253, 1342

1242. **The work of the factory inspector in hospitals.** *Industrial Relations Review and Report*, London, 1980, July, no. 227; health and safety information bulletin 55, pp. 1-6.

With the coming into force of the Health and Safety Act 1974, about 800,000 National Health Service staff were among the eight million workers who came under the scrutiny of the Factory Inspectorate for the first time. The organization and powers of the Inspectorate are outlined. A pilot survey by the Health and Safety Executive in the North West Thames region highlighted areas in hospitals where the health and safety standards and precautions were found to be inadequate or non-existent: clinical

and medical laboratories; fire hazards; pollution in operating theatres; environmental conditions; lack of proper rest and changing rooms; and problems associated with lifting. Against this background a programme of formal inspections began in 1978, but is not likely to be completed until 1982. Points to be included in hospital health and safety policies are listed. The work of the Factory Inspectorate in the South West is outlined. The problems of enforcement are discussed.

1243. MARSHALL, Richard E. and KASMAN, Christine. **Burnout in the neonatal intensive care unit.** *Pediatrics*, Evanston, Ill., 1980, June, vol. 65, no. 6, pp. 1161-1165.

Neonatal intensive care units (NICUs) are difficult places in which to work. It is not surprising that social workers, nurses and physicians in NICUs have trouble coping with all the demands. In fact, most NICU workers have had times in their careers when they have experienced something known as 'burnout'. Burnout may be defined as the loss of motivation for creative involvement. The symptoms of burnout are physical, emotional, and behavioural. The characteristics and causes of burnout are presented from a clinical perspective. Individual strategies for coping with the situation are adequate relaxation, outside interests, and physical exercise. Organizational strategies include orientation programmes, educational opportunities, proper unit policies, support between groups, support within groups, adequate staffing, and improved personal relations.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 1216

1244. WOENSEL, L. M. J. van. Werving van topmanagers in de gezondheidszorg door middel van executive search. **[Recruitment of health service top management staff by means of executive search.]** *Ziekenhuis*, Utrecht, 1980, May 21, vol. 10, no. 10, pp. 308-310.

Increasing demands on health services, medical expansion and cost consciousness make the non-profit hospital organizations increasingly complex and more like business concerns. Management is, moreover, poised between hospital boards and independent professional bodies so top quality managers are needed. Recruitment at present is mostly through personal recommendation, advertising by the hospital, or via outside agencies. A fourth alternative is the executive search, a recruitment and selection method based on prior assessment and formulation of management problems. This process is carried out in three phases: (i) preliminary investigation into the organization and needs of the hospital concerned; (ii) market research and fieldwork outside the organization; and (iii) assimilation after taking up office. During preliminary research an analytical management document is prepared, through confidential interviews, by a professional consultant who takes account of past developments, future plans, internal and external problems, attractive and less attractive aspects of the post, criteria for manager's performance after 2½ years in post and personal qualifica-

tions. There follows a purposeful and confidential search for a suitable candidate by executive search consultants and when agreement is reached on contracts between employer and prospective new manager further references are taken. During the first period in post the executive search bureau, benefiting by the knowledge obtained during the research period, gives guidance to the new manager.

MEDICAL STAFF

See also Abstract Nos. 1230, 1276

1245. STURM, Johannes. Die tägliche Praxis im Umgang mit medizin-technischen Geräten—aus der Sicht des Mediziners. **[The daily handling of medical technology equipment from the viewpoint of the doctor.]** *Krankenhaus*, Stuttgart, 1980, July, vol. 72, no. 7, pp. 264, 265.

The hospital doctor is in daily contact with medical technology equipment. While he must ensure that it is used rationally and cost effectively he should see that this does not lead to the practice of 'soulless apparatus medicine'. The statements put forward in this paper are based on a questionnaire filled in by 21 doctors in the accident surgery department of the Hanover Medical School. They are dealt with under three heads: medical technology equipment (the need for it to be understood and properly serviced); the users (doctors and nursing staff); and the persons affected (the patients).

NURSING STAFF

See also Abstract Nos. 1233, 1235-1240, 1273, 1331

1246. SCHNEIDER, Alfred. Die Prüfung in der Krankenund Kinderkrankenpflege —Rechtsprobleme des Prüfungsverfahrens. **[The legal problems of nursing exams.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, Aug. 1, vol. 33, no. 8, pp. 476, 477.

This paper sets out the legal aspects of the examination of nurses in West Germany with references to the relevant legislation. The aspects covered include the conduct of examinations and the relationship between practical and oral tests; the content of examinations; and the system of awarding marks and gradings.

1247. WHITE, Charles H. **Where have all the nurses gone—and why?** *Hospitals*, Chicago, Ill., 1980, May 1, vol. 54, no. 9, pp. 68-71.

For three years the California Hospital Association has been collecting data on the shortage of nurses. The trend is clear—the shortage in California is worsening. Most vacancies occur on the night shift, particularly in rural hospitals. For special care units, the highest rate of openings is in intensive care. More than 90 per cent of all California hospitals consistently report recruiting difficulty and there is considerable dependency on nursing agencies. California's experience is not unique. Possible reasons for this shortage, when only half of the licensed nurses are practising, are discussed. Changes in the workplace are necessary if non-practising nurses are to be encouraged to return

to nursing. Most solutions to recruitment and retention of hospital nurses have focused on ways to increase the overall supply; this is inefficient. Hospitals must reduce vacancies and turnover by emphasizing careers rather than episodic jobs (or job-hopping).

1248. POSCHWATTA, Gisela. Kinderkrankenschwester ohne Kinderarzt Kinderkrankenschwester ohne Kinderchirung. **[The children's nurse without the paediatric physician or surgeon.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, Aug. 1, vol. 33, no. 8, pp. 471, 472.

For anyone associated with a children's hospital it is an established fact that the children's nurse cannot work without the paediatrician and the surgeon any more than paediatrician and surgeon can work without the children's nurse. With the great advances in the medical and surgical treatment of children, children's nursing has become an independent profession. Children's nursing requires an intensive and demanding training which is basically different from that for adult nursing. The children's nurse is particularly concerned with the mental and psychological welfare of her patients: she also has to act as intermediary between doctor and patient as well as between parents and patient. Much could be done to improve communication in children's hospitals involving both medical and nursing staff. There should be more discussion with, and informing of, parents who should take more part in the care of their children while in hospital. Young children should also be able to visit hospitals to see what goes on there.

1249. BERGEN, B. J. A. M. van and HOLLANDS, L. J. M. Verplegingswetenschap noodzakelijk voor de praktijk van de verpleging. **[Nursing theory must be studied before practical nursing is undertaken.]** *Ziekenhuis*, Utrecht, 1980, June 18, vol. 10, no. 12, pp. 370-373.

In recent years nursing has gained new significance—expanding from giving medical assistance into a total process of patient care; it has become a profession rather than mere skilled work. This change requires a new upgrading of nursing as a discipline with clear definition of its duties within the financial and economic structure of the health services, and a scientific basis of systematically built-up knowledge with critical testing of its data. Recognizing nursing as a scientific subject indicates its importance and complexity. Its picture has changed from routine work to planned patient-oriented care, a discipline with its own character. As a university subject it would require research and training, both theoretical and practical.

1250. BROWN, Billye. **Follow the leader.** *Nursing Outlook*, New York, 1980, June, vol. 28, no. 6, pp. 357-359.

All nurses are constantly being challenged to be leaders. But without both leaders and followers in nursing, there can be no unity, no successful goal-directed activity, and no true professional achievement. The fact that in order to lead, a leader must have followers is overlooked; the basic element of followership is neglected. Leaders are distinguished from power holders. The characteristics of followership are the same as those of leadership, only used in different degrees in different situations by different individuals. Individuals may be both followers and leaders at different times and in different situations. There is a need to teach both leadership and followership. The

future of nursing rests heavily on present and future leaders and on those who are their followers. For success in either or both roles, one needs their combined skills and values.

1251. DOUGLASS, Laura Mae and BEVIS, Em Olivia. **Nursing management and leadership in action.** 3rd edition. St. Louis, Mo., London, C.V. Mosby, 1979. xi, 289pp. bibliogs. ISBN 0 8016 1441 4 £6.50

Nurse education has traditionally emphasized the study of knowledge and skills in patient care and assumed that the qualified nurse would function in management and leadership roles with minimal preparation. Likewise nurses are promoted through the bureaucratic hierarchy on the basis of nursing care skills, rather than administrative and managerial ability. This book, however, attempts to teach the use of foresight and planning. Administrative theory is explained and related to daily nursing activities and the role of the staff nurse as a leader and manager is stressed. Apart from a chapter on the conceptual framework the book has chapters on management, teaching and learning, effective communication, delegating authority, evaluation, change, and leadership. Each chapter has a bibliography of books and journal articles.

1252. FRETWELL, Joan E. **An inquiry into the ward learning environment.** *Nursing Times*, London, 1980, June 26, vol. 76, no. 26; occasional papers, pp. 69-75.

This paper describes a two-part inquiry into the learning environment in different hospital wards. Fourteen wards which trained nurses in two small general hospitals and a unit in a third hospital were ranked on the basis of data from 327 rating questionnaires completed by 87 trainee nurses. Learners preferred wards with a variety of diseases and procedures and expected the ward sister to be a key teacher. Ward sisters were asked about the work of their wards and the opportunities for learning. Most sisters said the bulk of work in the ward concerned basic nursing and felt a greater commitment towards the needs of patients rather than learners. Many factors contributed to the learning environment and time available for teaching depended on work load and staffing levels as well as on the sister's style of management. In the second stage of the study, learners were interviewed about 371 observed ward activities to identify the amount of teaching and learning taking place in different circumstances where the ward sister was democratic, patient-oriented and fulfilled an active teaching role. However, no systematic training for this role is given by any official body.

1253. SCULLY, Rosemarie. **Stress in the nurse.** *American Journal of Nursing*, New York, 1980, May, vol. 80, no. 5, pp. 912-915.

The nature of stress as an individual and a group response is discussed. The first steps in coping with stress are identifying its signs and then its sources. Sources of stress in nursing fall within four areas: patient care; tensions within the staff group; outside forces acting on the individual or staff group; and unrealistic self-expectations. To control the effect that stress has on her the nurse should first monitor her physiological and psychological tension signals and then notice when they occur. Several alternative strategies for coping with stress are then available: daily relaxation exercises;

a 'decompensation routine'; physical exercise; cultivation of strengths; sharing concerns with superiors; and group discussions with colleagues.

1254. HINCHLIFFE, Marilyn G. **Management classes for head nurses—a consortium approach.** *Journal of Continuing Education in Nursing*, Thorofare, N.J., 1980, May/June, vol. 11, no. 3, pp. 51-55.

The Northwest Allegheny Hospitals Corporation, a consortium of seven acute care hospitals and two rehabilitation centres, includes among its shared services the development of continuing education programmes in management for head nurses. This paper describes the Corporation's approach to: identification of needs; programme development; programme review; participant selection; programme design; and evaluation. The first course, initiated on a trial basis, significantly met the needs of the participants and nursing administration. Two additional courses were conducted and others will continue as long as the need exists. A number of head nurse projects initiated in class resulted in significant service changes and subsequent cost savings within member institutions.

OTHER PROFESSIONAL AND TECHNICAL STAFF

1255. WAWRA, Werner. Die tägliche Praxis im Umgang mit medizin-technischen Geräten aus der Sicht des Technikers. **[The daily handling of medical technology equipment from the technician's point of view.]** *Krankenhaus*, Stuttgart, 1980, July, vol. 72, no. 7, pp. 262-264.

This is largely a checklist of the duties and responsibilities of the hospital medical technician with regard to the ordering, acceptance, use and maintenance of medical equipment.

1256. BIRD, H. A., WRIGHT, V. and GALLOWAY, D. **Clinical metrology—a future career grade?** *Lancet*, London, 1980, July 19, no. 8186, pp. 138-140.

State registered nurses have been employed as clinical metrologists in Leeds for the past seven years. They have come to assume increasing responsibility, particularly in the conduct and recording of clinical trials in the rheumatic diseases. Their work can be extended to the planning of trials, practical procedures, and other research activities. Analysis of 20 applications for a recent vacant post suggests that many married women, highly qualified professionally, who have completed their families, would welcome the opportunity to return to part-time nursing duties in 'social hours'. Increased responsibility and job satisfaction compensate for reduced salary. Clinical metrology may be a new career grade in the National Health Service that allows for more careful monitoring of patients with a constancy that cannot be achieved with rotating junior medical staff. Physicians can be released from the routine of follow-up, so that they have more time for diagnosis, management of complex problems, and research. Although a deliberate decision was made in Leeds to recruit nurses, it is possible that occupational therapists, physiotherapists or even basic scientists might be as suitable according to the particular needs of the department.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1275, 1322, 1345

1257. SOMERS, Herman M. **Seven forces that are shaping the future of hospitals.** *Trustee*, Chicago, Ill., 1980, Jan., vol. 33, no. 1, pp. 27-30.

The developments which will shape the future of hospitals during the next two decades are already emerging, and hospital boards must take them into account if they are to fulfil their missions. The author suggests that these developments are: (i) the rapid aging of the population; (ii) chronic disease as the dominant pattern of morbidity; (iii) a sense of limits in the availability of resources; (iv) a slowdown in technological extravagances; (v) the coming 'surplus' of medical manpower; (vi) increased public sophistication about health as opposed to health services; and (vii) the emerging legislative and administrative environment. Others may disagree, but it is essential to anticipate the future and prepare to act in timely fashion, instead of simply waiting to respond to the next set of government initiatives. Creative planning demands trying to influence the future, to mould it to desired ends within feasible limits.

1258. TWIJNSTRA, A. Management als proces. **[Management as a process.]** *Ziekenhuis*, Utrecht, 1980, June 4, vol. 10, no. 11, pp. 330-335.

Good management should be flexible but have clear objectives, continuity and creativity. This ideal requires management to deal with basic problems of deciding the needs of its environment, the balance of supply and demand, the internal organization of groupings, and good work planning. To organize effectively requires a knowledge of people, means and techniques. A hospital organization has two lines of authority, the bureaucratic and the professional, with the former dominating in the higher echelons; both should be well attuned to each other. A modern manager is expected to have proper managerial training, qualifications, social awareness, cost consciousness and ability to pay special attention to management of patient care. Like other organizations a hospital, though non-profit making, has its market function, i.e. its relations with external parties, doctors, patients, other hospitals, etc., and its financial, personal and material responsibilities. Top management should therefore pay attention to: (i) external factors concerned with market, environment, development, administrative and other bodies; (ii) patient care, divided into a medical and a nursing component and concerned with diagnostics, treatment, nursing and patient guidance; and (iii) internal management, concerned with administration, finance, staff, and hospital organization.

ECONOMICS OF HOSPITAL MANAGEMENT

See Abstract No. 1282

ELECTRONIC DATA PROCESSING

See also Abstract No. 1281

1259. WILSON, J. C. Tunnicliffe. **A review of operational problems tackled by computer simulation in health care facilities.** *Health and Social Service Journal*, Basingstoke, 1980, July 18, vol. 90, no. 4702; centre eight papers, pp. B73-80.

The use of simulation studies in health care has grown substantially in the last 10

years and considerable literature on the subject is now available. This paper summarizes this material, concentrating on the level of the institution or facility, rather than on whole populations or individual patients. The review covers: emergency care; size of facility; organization of resources; delegation of tasks; and organization of patients. A list of 96 references to the literature is included.

1260. DIRICHLET, G. L. Vom Rechenzentrum zum EDV-unterstützten Arbeitsplatz. **[From computer centre to the work place supported by electronic data processing.]** *Krankenhaus-Umschau*, Kulmbach, 1980, June, vol. 49, no. 6, pp. 477, 478.

The development from the central computer installation to a system of direct processing of data at individual service points (real time processing) is described in its relationship to hospital management. The development of machine-oriented and problem-oriented program languages for specific purposes is described. The following hospital functions are considered to be suitable for automation on an individual service point basis: patient admissions; appointments; patient history and examination data; measurement recording and processing; findings; doctors' letters; medical records; general information; and various other functions.

1261. KOMAROFF, Anthony L. **The variability and inaccuracy of medical data.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1196-1207.

Medical data are defined, collected and interpreted with a degree of variability and inaccuracy which falls far short of the standards which engineers expect from most data. Medical data (the medical history, physical examination, and laboratory tests) are provided by the patient and collected/interpreted by the clinician. This complex process is examined and considerable variation is found in the taking of the medical history, the performance of the physical examination, the interpretation of laboratory test results, and even the definition of disease. The implications for computerized medical information systems, quantitative techniques for medical diagnosis, and the evaluation of bioengineering technology are discussed. A list of 93 references to the literature is included.

1262. TSCHAN, Walter. EDV-Anlage im Rechnungswesen: am Beispiel des Kantonsspitals Basel. **[Electronic data processing in accounting: the Basel Cantonal Hospital as an example.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 3, pp. 51, 52.

In July 1978 the Basel Cantonal Hospital introduced an electronic data processing system for its accounting procedures. The IBM 34 computer system is leased. Details are given of the data processing system for both in and out-patients. About 280 documents are dealt with daily involving 900 entries and 120 payments. Cost accounting results are produced within two to four weeks of the end of the period covered. Annual running costs, including hire charges for hardware, depreciation of software and operating costs amount to 56,000 Swiss francs.

1263. KAK, Avinash C. **Computerized tomography with X-ray, emission, and ultrasound sources.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1245-1272.

This paper reviews the major developments that have taken place during the last

three years in imaging with computed tomography using X-ray, emission, and ultrasound sources. The particular topics covered are: reconstruction algorithms; X-ray transmission computed tomography; emission computed tomography; and ultrasonic computed tomography. A list of 126 references to the literature is included.

1264. SHORTLIFFE, Edward H., BUCHANAN, Bruce G. and FEIGENBAUM, Edward A. **Knowledge engineering for medical decision making: a review of computer-based clinical decision aids.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1207-1224.

Computer-based models of medical decision-making account for a large proportion of clinical computing effects. This paper receives representative examples from the following medical computing paradigms: clinical algorithms and automation; data bank analysis for prognosis and therapy selection; mathematical models of physical processes; statistical pattern-recognition techniques; Bayesian statistical approaches; decision theory approaches; and symbolic reasoning approaches. There are two recurring questions: performance; and acceptability. These issues must be considered from the outset in a system's design. It is noted that no one method is best for all applications. However, emphasis is given to the limitations of early work which have made artificial intelligence techniques and knowledge engineering research particularly attractive. It is stressed that considerable basic research in medical computing remains to be done and that powerful new approaches may lie in the merging of two or more established techniques.

1265. CULLEN, David J. and TEPLICK, Richard. **The role of computers in the future of intensive care.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1307, 1308.

Computers may enhance the clinician's diagnostic and therapeutic acumen with proper data and well-defined algorithms. Computers can also manage patient data rapidly and efficiently, suggesting and even implementing therapy. But computers are not in widespread use today because: (i) unquantifiable observations not amenable to computer analysis are inherent in the clinician's evaluation of therapy and response to therapy; (ii) computers do not reassess ineffective or detrimental therapeutic measures and modify therapy as clinicians do; (iii) much disagreement among skilled intensive care physicians exists concerning algorithms because the pathophysiology of many diseases is poorly understood; (iv) most computerized data are still indirect references of specific organ function and must be combined with non-quantifiable observation to diagnose and treat critical illness; and (v) the high cost and difficulty of demonstrating efficacy have restricted computer use.

1266. MELEN, Roger D., MACOVSKI, Albert and MEINDL, James D. **Application of integrated electronics to ultrasonic medical instruments.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1274-1285.

During the past decade, ultrasonic medical diagnostic instruments have advanced significantly as a result of the resourceful application of electronic-system and acoustic-transducer designs to the problem of non-invasive information acquisition from

patients. These advancements are reviewed, with emphasis on the electronic technology by which they were achieved. Current instruments that enable imaging through real-time scanning and gray-scale display are described. It is predicted that future ultrasonic diagnostic instruments will be based on increasingly sophisticated integrated electronic technology that should greatly enhance the imaging performance of these systems; it should also provide the foundation for ultrasonic imaging instruments that will extend the state of the art in quantitative analysis and diagnosis through doppler processing. This growing technology will most likely include: high-current DMOS multiplexer transmit/receive switches; precision pre-amplifier array circuits: advanced beamsteer/focus delay lines; multi-element integrated transducer arrays: and doppler-processing integrated circuits.

1267. SHEPPARD, Louis C. **The computer in the care of critically ill patients.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1300-1306.

In this paper, the 11-year experience of the Cardiac Surgical Intensive Care Unit of the University of Alabama, Birmingham, serves as a model to illustrate the concepts, techniques and procedures which facilitate the effective use of a computer-based system in the care of critically ill patients following open-heart surgery. Evidence indicates that the additional cost of the computer may be recovered through enhanced staff performance and more rapid stabilization which results in earlier transfer from intensive care to a semi-private room. However, irrefutable proof that the systems are cost-effective is still lacking mainly because of the difficulty of quantifying the economic value of benefits. The applicability of this technology depends largely on the nature of the clinical environment. Well-organized units within which patient management is highly structured provide the maximum opportunity for efficacious and economic use of computer based intensive care systems. Analysis of the activities and procedures of the unit must precede system design and implementation to appraise the appropriateness, to identify the clinical requirements, and to avoid improper application of the technology.

1268. BARNETT, G. Octo and others. **COSTAR—A computer-based medical information system for ambulatory care.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1226-1237.

The COSTAR (COmputer-STored Ambulatory Record) system was originally developed by the Laboratory of Computer Science, Massachusetts General Hospital, Boston, in association with the Harvard Community Health Plan, to perform the data management functions needed by a group practice in the care of ambulatory patients. A significantly revised and expanded version, COSTAR 5, has been developed in collaboration with the Intramural Division of the National Center for Health Services Research and with Digital Equipment Corporation. This paper describes the data management characteristics of COSTAR 5, and discusses the implementation strategies chosen. The physician records medical, administrative, and financial information on a single source document (the encounter form); data are input by clerical staff; information is retrieved via different computer-generated displays and printouts which automatically select and organize the data. COSTAR is available on

minicomputers using commercially supported software and will be marketed by commercial organizations.

1269. SEIDLITZ, Dickey and others. **A computerized alert program for acutely ill patients.** *Journal of Nursing Administration*, Wakefield, Mass., 1980, June, vol. 10, no. 6, pp. 26-35.

The 570-bed LDS Hospital, Salt Lake City, Utah, has developed an integrated computer system called HELP (Health Evaluation through Logical Processing). It consists of 10 minicomputers interconnected with a central data base computer and provides for data collection from clinical data sources, data storage, and a computer language (also called HELP) that facilitates decision making from the clinical data. This paper is particularly concerned with the most recent addition to the system, the ALERT program, which uses special decision criteria of the HELP system to warn physicians of selected abnormal data on each patient. In addition, special alerting mechanisms have been added to permit quick access to patient data and notification of life-threatening conditions. Each alert is promptly followed up by a nurse clinician who personally notifies the physician and distributes a computer-generated treatment protocol. Preliminary study data suggest that use of the alerting program to notify physicians promptly of abnormal laboratory values results in more prompt and correct treatment of patients.

LIBRARIES

1270. ROWE, Dorothy B. **$50,000 grant for the Central DuPage Hospital Library.** *Hospital Libraries*, Oak Park, Ill., 1979, vol. 4, no. 2, pp. 9-23.

On 1 March 1979 Central DuPage Hospital, Winfield, Ill., received a $50,000 Medical Library Resource Project Grant from the National Library of Medicine for the alteration and renovation of the hospital library. In this paper the librarian describes how she acquired the necessary allocation of space, obtained local planning and building permits and set about preparing the application for the grant. The application is reproduced in full and includes: cost estimate outline; statement of need; scope of work; description of the proposed library and its services; and a sketch plan.

HOSPITAL STATISTICS

1271. MENGIS, O. and SCHAAD, R. Bestandesaufnahme von Betriebsdaten in einer interkantonalen Region. **[Recording hospital data in an inter-cantonal region.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 2, pp. 60-63.

The Swiss Hospital Institute has carried out an analysis of the hospital data of five cantons in the north west of Switzerland (Aargan, Basel Province, Basel City, Bern and Solothurn). These are presented in a series of charts which cover the 10 years 1967 to 1976 and which give the data in the form of percentages with the 1972 figures as 100 per cent. The six charts show respectively: 'hospitalization' (discharges per 1,000 inhabitants); number of patients; patient days; patient days per 1,000 inhabitants; number of beds per 1,000 inhabitants; average staff complement in relation to 100 beds; numbers of beds.

LEGAL AND ETHICAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract Nos. 1226, 1246

1272. HODGKINSON, Peter E. **Psychological approaches to violence.** *Nursing Times*, Basingstoke, 1980, Aug. 7, vol. 76, no. 32, pp. 1399-1401.

This paper examines the theme of prevention of violence by patients by developing a broader understanding of the different aspects of violence. No discussion of violence will be useful if it considers it as a single entity, or out of the context in which it occurs. The interpersonal nature of violence is important and the behaviour of hospital staff both during and outside a violent incident may be an integral part of the problem. A few of the problems due to the contribution of institutions and their routines will only be solved by more money and more staff, but many can be circumvented if the enthusiasm exists.

1273. O'SULLIVAN, Ann Lawrence. **Privileged communication.** *American Journal of Nursing*, New York, 1980, May, vol. 80, no. 5, pp. 947-950.

Article 2 of the *Code for nurses* expresses nursing commitment to safeguarding nurse-patient communications. With more and more clinicians and nurse practitioners providing primary health care, the question of privilege between nurse and patient will arise more frequently. Privileged communication is established by state statute and by common law. Statutes specifying privileged communication between the registered nurse and patient exist in Arkansas, New York, Oregon, Vermont and Wisconsin. In the remaining states, privileged communication can be recognized and determined by common law, that is case law. The case law on the matter is reviewed. A two-pronged effort may be necessary on the part of nurses—on the one hand to inform the public of the nature and importance of privilege, and on the other to lobby for state legislation for privilege.

OTHER SPECIAL ASPECTS

1274. ROCHAIX, M. Les Hospices Civils de Lyon: exemple de coopération interhospitalière. **[The Hospices Civils de Lyon: an example of inter-hospital co-operation.]** *Acta Hospitalia*, Leuven, 1980, vol. 20, no. 2, pp. 105-134.

The author describes how, since 1970, France has been divided into health regions, and subdivided into sectors. The hospitals in each sector are obliged to come together to examine questions of bed capacity. They may also establish unions or syndicates for the purpose of providing centralized services: laundry, computer facilities, training schools, and creches, for example. Or they may form an integrated group: in Lyon, the 21 hospitals make up the Hospices Civils de Lyon, the next largest group to the Assistance Publique in Paris. The author presents an administrative chart to illustrate how this system works and appends five explanatory maps. He examines the advantages and disadvantages of the system: it is easier for a large group to negotiate with outside bodies such as the University or the City; it is also easier to adapt to changing needs,

and flexibility generates efficiency. High technology departments can be established, but the type of structure chosen must be the right one, as errors can be costly; the managerial skills demanded are considerable. A key factor in the operation of a large system of this kind is the constant upward and downward flow of information.

FINANCE AND ACCOUNTING

See also Abstract No. 1201

1275. STORØY, Inge Bjørn. Ressurskrise ved våre helseinstitusjoner: forsterkes denne av den eksisterende sykehusstruktur? **[The influence of the present hospital structure on the critical financial situation of our hospitals.]** *Norsk Sykehustidende*, Oslo, 1980, vol. 53, no. 5, pp. 16, 17.

The scarcity of resources is an ever-present topic in the debate on the health sector. The author discusses variations in costs per patient; in Norway these appear to be higher in regional hospitals than in local or central hospitals. These variations depend to some extent on the distribution of specialties, the volume of out-patient work, and the bed occupancy rate. He suggests that future allocation of resources should pay more attention to the services which the individual hospital provides.

COSTS

See also Abstract Nos. 1206, 1325

1276. BROOKS, Deal Chandler. **A sampling of medical staff cost containment projects.** *Hospital Medical Staff*, Chicago, Ill., 1980, May, vol. 9, no. 5, pp. 23-27.

Medical staffs are implementing and participating in a variety of programmes designed to lower health care costs in their institutions and communities. Two broad categories of programmes or activities are involved: those that inform or educate physicians on the costs of hospital care; and those that are concerned with individual physician or organized medical staff influence or control. This paper gives brief details of programmes in a number of hospitals ranging from cost awareness to procedural changes within the hospital. These projects are representative of a large selection of projects soon to be published in digest form.

1277. BANTA, H. David, CORCORAN, Susan and SANES, Joshua R. **Weighing the benefits and costs of medical technologies.** *Proceedings of the I.E.E.E.*, New York, 1979, Sept., vol. 67, no. 9, pp. 1190-1196.

Technological advances enhance our ability to prevent, diagnose, and treat disease, and to administer medical care. But every medical technology that is technically feasible need not be developed. Technologies are available that are not acceptably safe, efficacious, or cost-effective, or that have indirect, unanticipated effects on the medical care system or on society in general. Because of these effects, and because resources

are limited, it is necessary to be much more selective than has been usual about which medical technologies to develop or use. However, methods for assessing the benefits and costs of medical technology, which could help to make these choices, are themselves poorly developed and little used. Results of more rigorous assessments could supplement political and economic considerations and thereby contribute to a rational decision-making process.

1278. LAMBERT, D.-C. Dépenses de santé et contraintes économiques. **[Health expenditure and economic constraints.]** *Gestions Hospitalières*, Paris, 1980, March, no. 194, pp. 241-256.

In this long and well documented article the author attempts to show that improved health is not necessarily a direct function of the supply of health care and health expenditure. He compares general mortality and infant mortality rates in countries such as Sweden and the USA where expenditure on health and hospitals is very high, with others such as the United Kingdom, Italy, and Japan where expenditure as a proportion of the gross national product (GNP) is relatively low. The 'mortality' criterion, he admits, is a fairly crude one, but the best available. Comparative data are used to show that the efficacy of care is not proportional to the amount of government intervention. It is claimed that, at a time when external constraints such as inflation, the oil crisis, and world-wide recession are slowing down the growth of the GNP in France, French men and women can no longer afford the current annual increase of 7.7 per cent in expediture on health. Real needs must be met with fewer resources, and the creation of subjective needs is to be avoided. If total expenditure on health is to be kept below 10 per cent of GNP, then, at the current low rate of expansion of the French economy, growth in health expenditure in real terms must be kept to three per cent.

HOSPITAL ACCOUNTING

See also Abstract No. 1262

1279. Tresorerie de l'I.N.A.M.I.: un trou noir. **[The INAMI fund: a depressing gap.]** *Hôpital Belge*, Bruxelles, 1980, March/April, vol. 23, no. 144, pp. 29-32.

Belgian hospitals have for many years funded more than 80 per cent of the INAMI (National Health Insurance Institute) deficit; this is because they often have to wait for a considerable time for the INAMI to pay them in respect of treatment given to insured patients. The hospitals can no longer afford to tolerate this; they will soon be unable to borrow from the banks, even at 20 per cent interest rates. Unless the Government introduces fundamental reforms very soon, the hospitals will be forced to ask the patients to pay the full cost of their treatment directly.

1280. QUINN, Christine. **Out of pocket: an enquiry into the financial welfare of patients in psychiatric and mental handicap hospitals in Scotland.** Glasgow, Scottish Council for Civil Liberties, [1980]. 14pp. £0.35

This study investigates the protection in Scotland for psychiatric and mental handicap patients regarding their money, property and welfare benefits. Basic needs are provided by hospitals but secondary needs, such as pocket money, are met on a discretionary

basis. Since there is no statutory provision for it, nurses' control of patients' money and how they spend it is technically illegal. A systematic procedure for receiving patients' national insurance, social security and other payments is recommended; one suggestion is the employment of welfare assistants by the hospital authorities. One reason for some patients being unable to cope with their money at present is the complexity of the payments system which includes: non-contributory invalidity pension, attendance allowance, mobility allowance, invalidity benefit and sickness benefit.

1281. RAAIJMAKERS, C. M. G. Functionele bedrijfsrekening, toegepast in het ziekenhuis. **[Functional accounting system adopted in hospitals.]** *Ziekenhuis*, Utrecht, 1980, May 21, vol. 10, no. 10, pp. 294, 295.

Accounting systems in hospitals are usually based on categories of costs, giving no information on the costs of specific functions. The functional system, in which at present 42 hospitals (including nursing homes) participate, is based on functions. It recognizes 57 functions which can occur in hospitals, sub-divided into 31 'main' sections which relate directly to the patient, and 20 auxiliary sections. The first phase in the procedure is the data preparation by the hospital. After completion this is passed on to the National Hospital Council, which processes the data, produces comparative statistics with other hospitals and returns the results. These results are of importance in internal cost management of the individual hospitals, for external comparison of their costs with other hospitals, as a basis for cost calculation per performance unit (disease costing), and as a guide in determining a hospital's objectives.

SUPPLIES AND STORES

STORES

1282. CAMPBELL, J. **Integrated material management—or the case for the hospital materials manager.** *New Zealand Hospital*, Wellington, 1980, April, vol. 32, no. 3, pp. 21-24; May, vol. 32, no. 4, pp. 12, 14.

Hospitals and boards in New Zealand have varying degrees of central purchasing or materials control. There seems to be no consistent pattern of either centralization or decentralization. While professional services, personnel management and financial management receive considerable attention in the development of cost containment plans and organizational structures, the effective control of the materials budget is just as germane. In this respect the concept of integrated materials management is advocated. It involves centralized responsibility under one manager for: (i) co-ordinating the hospital material requirement; (ii) scheduling the material process, (iii) controlling the material budget; (iv) procuring, storing, distributing and managing the equipment and supply inventory; and (v) providing budget and other information on material matters to senior management. The role of the materials manager is outlined and the functions, organization and objectives of his department are detailed. An organization chart for the materials department is included.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1283. FRICKER, A. Krankenhausverpflegung—auch ein lebensmitteltechnisches Problem. **[Hospital catering: a food technology problem.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, July/Aug., vol. 21, no. 7/8, pp. 429-434.

The various processes for preserving foods are briefly described and their advantages and disadvantages discussed. These processes divide into chemical and physical measures. The former include salting, pickling, smoking, enzymatic acidification as well as the addition of preservatives. Physical processes include various forms of heat application, refrigeration and freezing, dehydration and irradiation. The effects of these processes on colour, flavour and texture on the one hand and on nutritional value on the other are set out. While pasteurization changes foods very little its effect is not very long-lasting; sterilization affects taste and texture but its preservative action is long-lasting. Freeze-drying and deep-freezing are very effective but costly.

DIETETICS IN THE HOSPITAL

1284. Diätessen in Krankenhäusern der Bundesrepublik Deutschland. **[Diets in hospitals in the Federal Republic of Germany.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, July/Aug., vol. 21, no. 7/8, pp. 424, 426.

In 1974 25.8 per cent of meals prepared in West German hospitals were special diets; in 1980 this figure is 33.3 per cent. Of hospitals questioned 65.2 per cent recorded an increase in the number of diets over the past five years, 5.7 per cent recorded a decrease and 26.1 per cent showed no change. On average the cost of diet meals was DM6.67 per patient stay: for normal meals this figure was DM6.04. A table sets out the percentage of hospitals which use various commercially prepared meals frequently, rarely or never: most frequently used were portion-packed breakfast or evening meals (57 per cent) and least frequently soups and sauces (16.3 per cent). A second table gives the degree of satisfaction, as regards quality, price, menu recommendations and selection, with diet meals: on most counts satisfaction has increased slightly as compared with 1974.

HYGIENE IN THE HOSPITAL KITCHEN

1285. NEUGSCHWANDTNER, E. Lebensmittelhygiene im Krankenhaus. **[Food hygiene in the hospital.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, July/Aug., vol. 21, no. 7/8, pp. 420, 423, 424.

For the prevention of food poisoning hospital kitchens should ensure that the following conditions are met: staff should have proper training in hygiene; cleaning and disinfection should conform to a recognized plan which could be worked out in collaboration with a specialist firm; prepared foods should be maintained at a temperature of 75°C for a period not exceeding three hours; poultry should be prepared in a special area and all surfaces and utensils coming into contact with fresh or thawed

out poultry should be cleaned and disinfected after use; there must be facilities for hygienically adequate hand cleaning, and strict separation of raw materials and prepared foods.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

1286. GUIZZI, G. Mezzi tecnici e meccanici per una migliore pulizia e maggiore igiene. **[Technical and mechanical means for better cleaning and greater hygiene.]** *Tecnica e Metodologia Economale*, Firenze, 1980, March/April, vol. 29, no. 2, pp. 124-129.

This is a practical guide to hospital cleaning. The main prerequisites are: (i) a well-trained cleaning team; (ii) chemicals (quaternary ammonia products are preferred in Italy); and (iii) equipment for the cleaning team. The latter item includes doormats, mops, brushes, and dusters as well as vacuum cleaners and floor polishers. Doormats are useful for preventive cleaning; germicidal ones are now available. Electro-static brooms raise no dust, and disposable impregnated cloths for damp dusting reduce the bacterial load. Machines do not need to be sophisticated, nor do they need to be small enough to go under the beds: it is more efficient to move the bed than to have a machine with too small a working surface. Separate floor-washing and floor-drying machines are more efficient than the combined type, and mains-operated machines more efficient than battery-operated models. Vacuum cleaners should not emit particles which are larger than four to five microns. Their noise can be reduced by having one very powerful cleaner with a very long branch hose, so that two people can use it at the same time. New hospitals should have a centralized vacuum plant; the hose of the vacuum cleaner is then attached directly to a special socket in each room and the dust is transferred pneumatically to a central disposal point.

HYGIENE IN THE HOSPITAL

INFECTION PREVENTION AND CONTROL

See also Abstract No. 1229

1287. NOVIANT, Y. Infection, circuits et nettoyage au bloc opératoire. **[Infection, design and cleaning in the operating suite.]** *Techniques Hospitalières*, Paris, 1980, May, vol. 35, no. 416, pp. 54-58.

The author discusses current concepts of operating suite design, routes for staff, patients, and materials inside the suite, systems for transferring the patient into the theatre, and the transfer of the patient to the recovery room. She suggests that each theatre should have its own unit consisting of induction room, extubation room, sterile store, and sterilization room. She discusses cleaning and disinfecting techniques and recommends that the walls of the theatre should be washed daily when the theatre

is empty. If formol is to be used, the theatre must first be perfectly clean and the air conditioning switched off. The wheels of trolleys and beds can be cleaned with an aerosol spray. Unless it is maintained and disinfected every day, the cleaning equipment itself may be a source of contamination. Finally, the author suggests that the suite should be planned in such a way that the staff rarely, if ever, need to leave the unit during the day.

1288. TOBIN, J. O'H. and others. **Legionnaires' disease in a transplant unit: isolation of the causative agent from shower baths.** *Lancet*, London, 1980, July 19, no. 8186, pp. 118-121.

Legionnaires' disease was diagnosed in two patients in a new transplant unit, both patients having occupied the same postoperative cubicle shortly before the onset of their illnesses. *Legionella pneumophila* was found in water taken from the cubicle shower bath and from showers in other postoperative cubicles and in the nurses' changing room, but not from two showers in the main transplant unit. The showers in the cubicles and changing rooms were not used as frequently as those in the main unit; this might have allowed a build-up of organisms in them. The cold water tanks and hot water system were treated with chlorine. Legionellae were not isolated after examination of the showers three, five and six months after the second case, but the organism was found again in a shower sample taken at nine months. It is suggested that the water supply system should be cleaned and disinfected before new hospital buildings are commissioned. The design of shower baths should also be reconsidered with a view to reducing unnecessary 'backwaters'.

1289. FABIANI, G. and FASQUELLE, R. Les bases de la lutte contre les infections hospitalières. **[The foundations for countering hospital infections.]** *Bulletin de l'Académie Nationale de Médecine*, Paris, 1980, March, vol. 164, no. 3, pp. 232-238.

The control of hospital infection requires that its cause be identified as soon as possible; this implies close co-operation between laboratory and clinician. Short-term preventive measures include epidemiological monitoring by clinicians and microbiologists, and monitoring of standards of hygiene. The pharmacist must ensure the sterility of the medicines and material which he dispenses, and the staff medical officer is responsible for the detection of any infectious diseases, and especially of viral hepatitis and tuberculosis, among the staff. Prevention in the longer term will be a function of the correct design of new hospitals, particularly kitchens, laboratories, laundries, and ventilation systems. Ease of sterilization should be a factor in the choice of new equipment. The choice of disinfection procedures is also important. A regular flow of information is desirable between hospitals on changes in patterns of infection, bacterial resistance to antibiotics, and solutions to current problems.

1290. MAISONNET, M. and CZERNICHOW, P. Prévention des contaminations manuportées. **[Prevention of hand-borne contamination.]** *Gestions Hospitalières*, Mantes-la-Jolie, 1980, March, no. 194, pp. 235-240.

It cannot be repeated too often that the hands of hospital staff are the main vectors for the transmission of micro-organisms from a reservoir to the patient. The authors explain how the skin of the hands carries microbes, and they describe the microbiological

ecology of the skin. Details are given of three types of handwashing practice: simple washing, to remove transitory flora; antiseptic washing, to remove transitory flora and reduce residual flora, and surgical washing, or scrubbing. They examine the indications for each washing technique and present a table which gives the properties of the main antiseptic preparations in current use. It is recommended that wash-basins should be provided at strategic points in the hospital; the trap below the basin should be easy to get at and easy to disinfect. Regular and ample supplies of disinfectants, soap, antiseptics, and disposable towels and gloves must be made available; management must be made to understand that these are an economy in the long run.

HYGIENE IN THE OPERATING THEATRE

See also Abstract Nos. 1218-1220, 1287

1291. HAMBRAEUS, Anna and LAURELL, Gunnar. **Protection of the patient in the operating suite.** *Journal of Hospital Infection*, London, 1980, March, vol. 1, no. 1, pp. 15-30.

The importance of the general layout of an operating suite in the maintenance of high hygienic standards has interested architects, surgeons and microbiologists, but few systematic studies have been done in this field. In Sweden the design of many new operating suites has been greatly influenced by the recommendations of the Operating Theatre Hygiene Sub-committee of the British Medical Research Council. These divided an operating suite into four zones; protective, clean, sterile, disposal. This paper discusses the influence of these recommendations on the modern 12-theatre operating suite at the University Hospital, Uppsala. Also discussed are the significance of the different hygienic routines used in this suite and those reported by other workers. The paper covers: layout of the operating suite; sampling of floors for pathogens; ventilation; and protective clothing. A list of 54 references to the literature is included.

1292. MAISONNET, M. Quelques problèmes actuels sur le bloc opératoire. **[The operating theatre, present day problems.]** *Techniques Hospitalières*, Paris, 1980, May, vol. 35, no. 416, pp. 48-50.

A comparison of the results of two surveys in 14 European countries in 1968 and 1978 has shown that substantial progress has been made in the field of theatre hygiene, except, curiously enough, where the regular cleaning of floors, walls and ceilings is concerned. The author suggests that these findings should be borne in mind when considering current developments in theatre design. He suggests that routes for staff and equipment should be kept as simple as possible, otherwise the staff will tend to ignore the rules. He questions the advisability of multipurpose theatre suites and of sophisticated solutions to the problem of transferring the patient from his room to the theatre. He believes that separate recovery rooms must be provided for the septic and aseptic sectors. It is best to remove waste in heat-sealed bags. Heavy theatre equipment can be attached to an outside wall and repaired from outside. Similarly, patients' notes and X-ray plates can be viewed through a window in the theatre wall. He objects to the use of canvas shoes in the theatre and believes that if the staff wear pyjama-type suits they should tuck the top inside the trousers. The function of air conditioning is to prevent particles from penetrating the theatre and to remove as many particles as

possible in the shortest possible space of time; filters should therefore be placed at the entrance to the theatre. Finally, in matters of hygiene, there is no substitute for staff vigilance.

1293. SIMCHEN, Elisheva. **Reduction of post-operative infection rate in hip surgery: collaborative effort between orthopedic surgeons and control-of-infection team.** *Israel Journal of Medical Science*, Jerusalem, 1979, June, vol. 15, no. 6, pp. 480-484.

The team for the surveillance and control of hospital infections at the Hadassah University Hospital, Jerusalem, was established in 1970 as a collaborative effort between the departments of clinical microbiology and social medicine and the hospital administration. Since 1974, surveillance has been limited to wards where a specific intervention programme was introduced. The team includes an epidemiologist and two microbiologists, devoting part of their time to the work, and two half-time nurse-epidemiologists. The surveillance nurse was the key person in the programme. The team acted as advisors through a series of meetings with the clinicians. As a result of the programme, the infection rate dropped from 25.7 per cent to less than one per cent; this low rate was maintained over the 2½ years of follow-up surveillance. The reduction in infection rate was associated with a six-day (22.4 per cent) reduction in the length of post-operative stay.

STERILIZATION

See also Abstract No. 1339

1294. MAISONNET, M. Sterilizzazione con ossido di etilene. **[Ethylene oxide sterilization.]** *Tecnica Ospedaliera*, Milano, 1980, June, vol. 10, no. 6, pp. 56-60.

This is a technical description of ethylene oxide sterilization under the headings: methods, phases of sterilization, concentrations to be used, temperature, relative humidity, duration of exposure to the gas, bacterial resistance to the gas, and the field of application of ethylene oxide. The advantages and disadvantages are examined; the latter include toxicity, residues, possible damage to equipment, elimination of the gas after sterilization, and the complexity of the installation. The initial costs are high but running costs depend on the method employed.

1295. PERCEVAL, Allan. **Consequence of syringe-plunger contamination.** *Medical Journal of Australia*, Glebe, N.S.W., 1980, May 17, vol. i, no. 10, pp. 487-489.

It is common practice to use the same syringe to draw up sterile water, add this to lyophilized drugs, and recover the reconstituted fluid into the same syringe for injection to a patient or for admixture to parenteral fluids. If the sides of the plunger, apart from the sealing tip, can touch the inside of the barrel, any contamination, which might occur from finger contact to the sides of the plunger, will be able to enter the fluid pathway if the syringe is pumped in and out more than once. A series of experiments was conducted on four brands of commercially available plastic syringes to test this hypothesis. Two of the brands showed evidence of transfer of applied markers from the plunger to the barrel, in some cases on the first out and in movement of the plunger. The same brands showed transfer of bacterial contamination when vials of broth were manipulated five times. Each of the four brands allowed contaminants, which had been deliberately

applied to the inside of the barrel, to pass the plunger seal and enter the fluid pathway. The possibility of this contamination should be a factor in the design of syringes, their method of use, and the user's choice amongst those available.

1296. ENJALBERT, L. and others. Contrôle bactériologique de l'air après brumisation en milieu hospitalier. **[Bacteriological air hygiene using misting in a hospital.]** *Gestions Hospitalières*, Mantes-la-Jolie, 1980, April, no. 195, pp. 347-355.

The purpose of this study was to determine whether disinfection by means of misting or fogging was effective or not. Three techniques for obtaining particles from a certain volume of air, growing them without destroying the live bacteria which they contain, and counting the number of bacteria which produce a colony *in vitro* were compared; these were the Sartorious Collectron with a cellulose nitrate membrane, the Sartorius Collectron with a gelatin membrane, and the Reuter Centrifugal Sampler (RCS). The RCS was found to be the most reliable of the three. Measurements taken after misting treatment of a vacated room, using a product consisting of balsam essences and oils, showed that misting was in no way superior to leaving the room empty for 24 hours. It is important that all the surfaces in the room be thoroughly disinfected after 24 hours.

SAFETY MEASURES

1297. KREYSCH, W. and SCHIETZEL, M. Medizintechnische Sicherheit und Technische Service-Zentren. **[Clinical engineering safety and technical service centres.]** *Biomedizinische Technik*, Berlin, 1980, May, vol. 25, no. 5, pp. 112-115.

The proper maintenance and care of technical equipment in hospitals is of great importance. Investigations have shown that faults in such equipment are caused as follows: wrong use of electromedical apparatus, 60 per cent; inadequate or wrongly planned electrical circuits or installation, 16 per cent; inadequate maintenance, 10 per cent; faulty planning or construction of equipment, eight per cent; unavoidable accidents two per cent. To improve the safety of such equipment the Federal Government of West Germany has decided to set up model technical service centres in certain hospitals. One of these is at the Herdecke Hospital and its work is described in this paper. Its responsibilities include: preventive maintenance; initiating, supervising and carrying out repairs; training staff; servicing equipment; short term and long term collaboration in the requisition of new equipment. As a result the number of faults has been reduced and the need to call in outside help has greatly decreased. A more detailed assessment of the work of technical service centres is to be made later.

ACCIDENTS, GENERALLY

See also Abstract Nos. 1228, 1242, 1326-1329

1298. LYNN, Frances H. **Incidents—need they be accidents?** *American Journal of Nursing*, New York, 1980, June, vol. 80, no. 6, pp. 1098-1101.

During a 4½-year period of observation in the 629-bed University Hospital, University of New York Medical Center, there were 2,000 nurse-initiated incident reports from clinical units only. The incidents were classified as falls (75 per cent); patient-inherent (10); procedure-related (11); or equipment related (4). The highest volume of incidents

occurred between 0830 and 1300. There was a positive correlation between the number of nursing staff vacancies and of incidents, except in the summer months when the frequency of incidents was high, presumably due to the large number of temporary staff. The age of the patient was a variable attracting an accident, but not an exclusive weighting factor. Others were: high-risk diagnoses; risk-prone conditions; depression; and confusion. The professional nurse must be able to recognize the potential for accidents and manipulate factors in the environment to reduce hazards.

1299. HARRINGTON, J. M. **The occupational hazards of medical laboratory work.** *Laboratory Practice*, London, 1980, June, vol. 29, no. 6, pp. 627-629.

A study of the incidence of tuberculosis among medical laboratory technicians carried out at the London School of Hygiene and Tropical Medicine between 1971 and 1975 is described. Among 24,000 laboratory workers in 488 laboratories, 21 cases of tuberculosis occurred compared with the expected number of 4.2 cases. The occupational risks were high. Pre-employment screening was offered to two-thirds of employees and laboratory conditions were very variable in terms of health and safety measures. Mortality rates among pathologists and technicians were higher than those of the general population. Technicians experienced 76 per cent of laboratory injuries, some of which could have been prevented by the wearing of protective clothing. Storage procedures were inadequate in 60 per cent of the laboratories studied. The Howie report (1978) may be used as a basis for upgrading and controlling the occupational risks of infectious disease, but guidelines must be established for the monitoring and control of physical and chemical agents used in the laboratory. Suitably trained members of the Health and Safety Executive should be empowered to inspect laboratories, but the recent consultative document on dangerous pathogens has not convinced pathologists of their ability to do so.

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

1300. WALT, Guido. Gase im Medizinalbereich: Ansätze zur Behandlung von sicherheitstechnischen Problemen. **[Gases in medical areas: dealing with problems of technical safety.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 3, pp. 53, 54.

This paper is concerned with the safety aspects of the supply and distribution of medical gases in hospitals. It covers both the central supply of these gases by way of piping installations and the supply in containers at the bedside. There is also the question of fire prevention which is of great importance in such a vulnerable area as a hospital. An effective method for determining risk in this connection is by means of what is called 'failure mode and effects analysis'. This method is illustrated with the example of fire outbreaks occurring in valves connected with oxygen bulk containers.

FIRES AND FIRE PREVENTION

1301. VOLZ, Siegfried. Brandrauch—die tödliche Gefahr. **[Smoke: a lethal danger.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7, pp. 407-409.

It is the smoke rather than the flames which represents the greatest hazard when fire

breaks out. Smoke also spreads more rapidly. Closed doors give the best defence against the spread of smoke and heat. There should always be a recognized escape route known to all who use the building. A second escape route could be a window accessible to fire escape ladders. Lifts must never be used as an escape route. Smoke can affect the sight and make it difficult to find the exit door: one should therefore feel one's way along a wall until the door is reached.

1302. BURGUN, J. Armand. **Lutheran Medical Center, Brooklyn, New York. A case history of how the sprinkler option provides design flexibility and can save money.** *Fire Journal*, Boston, Mass., 1980, July, vol. 74, no. 4, pp. 34-36, 91.

The National Fire Protection Association's *Life safety code* allows hospitals with a complete automatic sprinkler system to incorporate a number of deviations from certain construction requirements of the code. The 532-bed Lutheran Medical Center is housed in a converted heavy machine foundry building. The size, bay spacing, floor-to-floor heights and excessive live loads offered the advantage of an extremely flexible space frame, if an economical way could be found of preserving the interstitial space above the hung ceilings as open and unencumbered as possible. A feasibility study of the sprinkler option indicated savings of at least $750,000. The allowable construction and design modifications which resulted in this saving are detailed.

1303. MOEYAERT, P. Brandveiligheid in het ziekenhuis. **[Fire safety in hospitals.]** *Hospitalia*, Brussel, 1980, April/June, vol. 80, no. 2, pp. 95-97.

Belgian hospitals receive a fire safety certificate when the Head of the Fire Brigade is satisfied that their safety measures comply with local, regional, general and Government legislation. The legislation covers two aspects, materials and organization, and these should be borne in mind early on in building design. The materials aspect concerns layout of buildings and construction materials. Layout aspects include direct, easy access and sufficient parking space for fire engines; constructional materials aspects include use of fire-resistant building materials such as bricks and concrete, spraying with fire-resistant paints and other materials. Stairs must be contained between fire-resistant walls and doors and have anti-slip coverings, double railings, closed risers and a slope of maximum 37 degrees. Special attention is paid to areas with high fire risks such as kitchens and theatres, and there are additional regulations for lifts, electrical installations, fire extinguishers, etc. Buildings must be sectioned into compartments of maximum 2,500 sq.m., each within fire-resistant walls and doors. The organizational questions concern maintenance and control of technical installations such as lifts and boilers, their regular inspection by qualified experts, and regular training in fire drill for staff. Firms with more than 50 employees must employ a private fire service. Fire precaution works are substantially subsidized by the Government.

1304. L'incendie dans un établissement de soins. **[Fire in a health care establishment.]** *Hospitalisation Privée*, Paris, 1980, May, no. 203, pp. 50-51.

Three short articles are presented on fire risks. In the first article readers are advised to purchase and study Government safety regulations, which are published in the form of a *Journal Officiel* brochure. The second item discusses problems in a health care

establishment, in particular the detection of fire and the evacuation of the patients. The installation of automatic fire detectors is recommended as a solution to the first problem; compartmentalization of the building and the provision of sufficient exit routes, stairs, and lifts will go some way to solving the second. Regular fire drill, staff training, and close liaison with the local fire service are also advised. In the last section two audio-visual programmes for staff training are described. Entitled 'There's no such thing as a fatality' and 'If a fire were to start', they each have 80 colour slides and a taped commentary which lasts 10 minutes.

RADIATION HAZARDS

1305. GILL, J. R. **Radioactive hazards.** *Laboratory Practice*, London, 1980, July, vol. 29, no. 7, pp. 737-739.

This paper reviews the use of radioactive substances in hospital laboratories, the hazards that may arise and the precautions that should be taken. The effects of the Health and Safety at Work Act 1974 are discussed, with particular reference to the four main parts of the proposed framework for provisions in this field: regulations; approved code of practice on general matters; specific approved codes of practice; and guidance notes.

THE PATIENT

ADMISSION AND RECEPTION

1306. AMELIN, M. R. L'accueil des malades. **[Welcoming the patient.]** *Hospitalisation Privée*, Paris, 1980, April, no. 202, pp. 25, 26, 28, 29.

A patient entering hospital for the first time is naturally anxious and apprehensive. It helps if he is greeted with cheerful, bright surroundings and a genuinely welcoming receptionist. In the clinic for which the author is responsible, a receptionist welcomes each new patient; she shows him to his room, takes his particulars, assigns him a record number, deals with his health insurance claims, and, eventually, arranges his discharge. This 'personalized' service is not only of value to the patient; it also means that the clinic can submit its account to the insurance fund without delay.

WELFARE OF THE PATIENT

See also Abstract Nos. 1272, 1280, 1337, 1343, 1346

1307. KUSTABORDER, Margaret J. **Multidisciplinary committee identifies high-risk patients, co-ordinates care.** *Hospital Progress*, St. Louis, Mo., 1980, June, vol. 61, no. 6, pp. 63-65, 70.

Lack of communication between the health professions contributes to poor patient care planning. At St. John's Hospital North, a separate 98-bed section of the 850-bed St. John's Hospital, Springfield, Ill., a social worker, a gerontology clinical specialist, a nursing supervisor, a pharmacist, a dietitian, a physiotherapist and an occupational therapist have developed criteria to identify and handle patients' problems at admission. The hospital serves patients who need extra time for rehabilitation,

recuperation or terminal care. The seven now form an admission review committee which assists approximately 14 patients per week. The selected criteria, which are listed, cover five areas: psychosocial, medical/surgical, pharmaceutical, nutritional and rehabilitation. The criteria for selecting high-risk patients have been useful in two ways: (i) they enabled the committee to identify problems in all new patients; and (ii) they helped to reduce the number of comprehensive patient care planning conferences needed. Although no method of evaluating the committee's effectiveness was developed, the fact that more patients were discharged home rather than to long-stay care facilities led the committee to believe there was a positive change.

1308. WORSLEY, A. **Exploration of student nurses' stereotypes of patients.** *International Journal of Nursing Studies*, Oxford, 1980, vol. 17, no. 3, pp. 163-174.

The ways in which nurses interact with their patients are likely to depend to a great extent upon their impressions of them. It seems likely that nurses as a group may share certain common impressions or stereotypes of patients. This paper describes an attempt to identify some of the major features of the patient stereotype as construed by 79 female student nurses in a Melbourne general hospital. The students were asked to use words from a list provided to describe the patient they liked most and the patient they liked least. The data were analyzed in two stages: (i) by principal factors analysis with Varimax rotation; and (ii) a series of discriminant function analyses. The results show that nurses' stereotypes of hospital patients may be defined by relatively straightforward multivariate techniques. These stereotypes are strongly influenced by the type of patient, the sex of the patient, his or her length of stay in hospital, and the nurse's stage of training. Suggestions for further research are made.

1309. **The teacher in hospital.** *NAWCH News*, London, 1980, vol. 1, no. 3, pp. 9-12.

The papers given at a symposium arranged by the National Association for the Welfare of Children in Hospital to look at the changing role of the hospital teacher within current paediatric practice are summarized. The papers cover: changes in paediatric care; what illness really means; the teacher as a team member; play and the sick child; making the most of hospital; and a teacher for every sick child.

1310. OGILVIE, Amanda J. **Sources and levels of noise on the ward at night.** *Nursing Times*, Basingstoke, 1980, July 31, vol. 76, no. 31, pp. 1363-1366.

A study of noise at night was carried out in two male surgical wards of a large teaching hospital: a modernized 26-bed, ground-floor 'Nightingale' ward (A); and a modern cubicle ward of 'race-track' design containing 30 beds situated on the seventh floor of a modern block (B). Noise levels were measured on four consecutive nights between the hours of 22.30 and 23.30, 01.45 and 02.45, 05.00 and 06.00. The results are presented in four bar charts. They show that the noise levels on ward A were significantly higher than those on ward B over the four-night period. The average noise levels on both wards consistently exceeded the recommended level for a bedroom at night. The loudest noises on both wards were caused by: telephones; trolleys; glass urinals; metal bins being emptied; doors banging; and coughing. The most frequent sources of noise came from patients coughing and calling out, and from staff talking and using equipment such as trolleys. Kitchen noises and doors also ranked high in frequency and in ward B noises from an adjacent ward were particularly noticeable.

Most of the continuous noises, such as clock ticking and air-conditioning were not particularly disturbing. The implications of the findings are discussed.

1311. PARTRIDGE, Ann. **Hospital radio.** *Media Project News*, Berkhamsted, 1980, July, pp. 25-27.

The development of hospital radio in Great Britain is traced from its origin in Portsmouth in 1951 with the broadcasting to hospitals of commentaries on football matches to the present day when there are estimated to be 200 stations serving 75 per cent of National Health Service hospitals. The National Association of Hospital Broadcasting Organizations provides help and advice, a platform for the exchange of ideas and information, national negotiations, and a bi-monthly magazine. Stations vary from one person broadcasting a single programme once a week to a volunteer staff of 40 broadcasting round the clock. Ward visiting is an important part of hospital radio. Each station has a comprehensive collection of records and tapes to cater for most tastes. They are self-financing with donations coming from hospital authorities, local companies and fund-raising events. There is still room for considerable expansion of the service and possible future developments are mentioned.

HOSPITAL SOCIAL WORK

1312. EBERHARDT, Hermann. Krankenhausseelsorge—ihr Selbstverständnis, ihr Anliegen und ihre Möglichkeiten. **[Pastoral care in the hospital: its self-perception, applications and possibilities.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1980, July, vol. 33, no. 7, pp. 398-401.

A German hospital chaplain describes his work and at the same time points out some misconceptions about his duties. He does not, for example, restrict his conversations with patients entirely to the subject of religion; he is there to offer general support and encouragement. The chaplain must be able to speak to patients in confidence and it is very important that he works closely with medical and nursing staff, relying on them for advice on the patients' condition. The chaplain plays an important role in the care of terminal patients. He should be able to help and support, where necessary, doctors and nurses are well as patients.

TRANSPORT OF PATIENTS

See also Abstract No. 1323

1313. HUGHES, David. **The ambulance journey as an information generating process.** *Sociology of Health and Illness*, London, 1980, July, vol. 2, no. 2, pp. 115-132.

One aspect of the emergency ambulance journey often overlooked is its importance as a source of subjective definitions and verbal descriptions which ultimately are likely to influence the form of the incoming patient's initial reception at the hospital. The ambulance crew's need for some 'picture' of the case being processed from the time

an emergency telephone call is received, is linked to their reliance on a stock of typified knowledge in recognizing and ordering emerging elements of information. This paper explores some features of the extended process of categorization which lies behind the account of the patient's condition finally offered by crewmen to casualty department staff. The paper focuses mainly on data collected during over 50 emergency ambulance journeys and in conversations with ambulance crews.

1314. MORRIS, D. L. and CROSS, A. B. **Is the emergency ambulance service abused?** *British Medical Journal*, London, 1980, July 12, vol. 281, no. 6233, pp. 121-123.

This paper analyzes 1,000 consecutive patients brought by emergency ambulance (after 999 calls) to the accident and emergency department of Dudley Road Hospital, a major district general hospital in Birmingham, during March and April 1978. As Birmingham has the internationally recognized Accident Hospital, the proportion of serious trauma in Birmingham's district general hospitals is less than in similar hospitals elsewhere in Britain. The analysis covers: who called the ambulance; patient's embarkation point; disposal of patients from the accident and emergency department; analysis of cases by clinical specialty; and whether the ambulance was justified. In 51.7 per cent of the cases, transport by emergency ambulance was considered to be unnecessary; a further 10.2 per cent were of doubtful validity. Medical cases accounted for a greater percentage of necessary calls than did trauma and surgical cases. Medical education of the public is essential if the number of unnecessary emergency ambulance calls is to be reduced.

HOSPITAL CARE

See also Abstract Nos. 1248, 1249, 1267

1315. MANTHEY, Marie. **A theoretical framework for primary nursing.** *Journal of Nursing Administration*, Wakefield, Mass., 1980, June, vol. 10, no. 6, pp. 11-15.

The nursing administrator who is truly committed to the concept of primary nursing and its successful implementation must assess three key factors in her department: (i) the organizational theory or philosophy that provides the foundation for decision making; (ii) the administrative structure that establishes the framework for role responsibility and accountability at various levels; and (iii) the attitude of members of the management team. This paper provides a discussion of each of these factors and suggests the appropriate theoretical, structural, and attitudinal frameworks that facilitate a truly successful primary nursing care delivery system. In summary, it advocates decentralized decision making with congruity between responsibility, authority and accountability for decisions at all levels in the organization and clear allocation of 24-hour responsibility.

TERMINAL CARE

1316. TWYCROSS, Robert G. **Hospice care—redressing the balance in medicine.** *Journal of the Royal Society of Medicine*, London, 1980, July, vol. 73, no. 7, pp. 475-481.

The development of hospice care for the terminally ill in the United Kingdom and North America is outlined. The principles of hospice care are: (i) treatment of the patient as a person; (ii) avoidance of inappropriate treatment; (iii) symptom control;

(iv) care of the relatives; (v) bereavement support; and (vi) teamwork. The question of whether the hospice should be free-standing or an integral part of a more general hospital is discussed. In the United Kingdom the free-standing hospice tends to be independent in management, not bound by union manning agreements and therefore able to make greater use of voluntary workers. Apart from this all other advantages are on the side of integration. Though the free-standing hospice has been a necessary step in the evolution of continuing care, it should be seen increasingly, from a medical point of view, as an anachronism. Earlier referral to continuing care can avoid several weeks or months of unnecessary suffering and increasing despair. Possible future trends are examined.

1317. FOMUFOD, Antoine K. **Chronically ill institutionalized children: psychosocial effects of prolonged hospitalization of the terminally sick child.** *Social Science and Medicine*, Oxford, 1980, May, vol. 14A, no. 3, pp. 239-242.

This paper discusses the impact of chronic terminal illness on children, particularly adolescents, on their families and on the hospital staff who care for them. The manner of a child's reaction to his own death is very much influenced by the behaviour and involvement of his family and the hospital staff. Those caring for terminally ill children should be aware of various behaviour patterns that may manifest themselves at different stages of the disease. Parents may express anger or guilt at some stage and siblings may resent the attention given to the chronically ill child. Physicians and nurses have not been properly taught how to talk to dying patients or approach the parents of dying children. The questions, concerns and needs of both child and parents are different at various stages of the illness. Honesty, respect and good patient-family-doctor relationships are essential to optimal care for terminally ill children. The issue is not whether to tell that a child is dying, but rather when and how.

1318. KULIKOWSKI, Edna S. **Can a hospital serve as a hospice?** *Journal of Gerontological Nursing*, Thorofare, N.J., 1980, April, vol. 6, no. 4, pp. 203-206.

The Discharge Planning Unit at the Veterans Administration Hospital, Columbia, S.C., serves as a hospice within the hospital setting. In accordance with the original concept of hospice care, the care given by the unit includes working with the patient's family and providing home care where possible. The focus of care is to relieve symptoms often and to give comfort always. Although nurses are often better orientated towards palliative care than physicians, there is always ready access to a physician consultant for the management of emergency medical conditions. There is also much collaboration with other services and a welcome for volunteer help. Meetings of staff to discuss their feelings are essential in a unit such as this where the setting is emotionally draining. Although the Unit has cared for only six terminally ill patients and their families so far, the criteria of a hospice programme are being fully met.

HOME CARE, AFTER-CARE

See also Abstract Nos. 1344, 1347

1319. PLESSERS, M. Beschut wonen voor (ex-)psychiatrische patienten. **[Sheltered living for ex-psychiatric patients.]** *Hospitalia*, Brussel, 1980, April/June, vol. 80, no. 2, pp. 118-120.

The psychiatric Centre in Ziekeren, St. Truiden, Belgium, offers three progressive

forms of sheltered accommodation for ex-psychiatric patients who have difficulty in living on their own after their discharge from hospital. Accommodation in the Centre provides the basic human need of a secure home while having contact with the outside world. Such an environment has a therapeutic effect in the progress from collective security to individual freedom. Important aspects are the privacy of one's own room, active participation in the Centre's community, supportive care aimed at stimulating self-realization rather than imposed activities, and a daily routine task for each patient. The halfway houses provide evening and night treatment and aim at guiding patients towards independence in the outside world. Criteria for admission are the patient's intention of independent settlement within six months, medical recommendation, sufficient finance, daily outside employment or attending a rehabilitation programme. Patients receive support both individually and in group therapy. The group home is a form of accommodation for four to six persons who do not need constant support but who maintain themselves better as members of a group than when living alone. Socio-psychiatric services are available if requested by the patient and the group can accept or reject new applicants. Costs are born by the patients, who pay rent, buy their own food, etc. Provision of these forms of accommodation in Flanders is very limited (only four halfway houses) and the paper asks for more similar initiatives and public support.

1320. BJÖRK, Staffan. I Motala kan långvårdspatienten få vård hemma. **[In Motala long-stay patients are cared for at home.]** *Vårdfacket*, Stockholm, 1980, May 23, vol. 4, no. 10, pp. 46-49.

This is a brief description of a successful three-year experiment in Motala, where, after an initial stay in hospital, patients are nursed in their own homes, the hospital supplying the material and the staff. The latter include not only nurses and doctors but also physiotherapists and occupational therapists. There is a night patrol which will call regularly if required, or when summoned. The patients know that they can always be re-admitted to hospital if they and their families cannot cope at home. The scheme was originally intended for long-stay and terminal cases, but in 1979 50 per cent of the patients came from open or acute wards.

SPECIAL DEPARTMENTS

ADMISSION UNITS

See Abstract No. 1306

WARDS

See also Abstract Nos. 1209, 1252

1321. BRIGDEN, Raymond J. **Shared treatment facilities: an evaluation.** [London], Department of Health and Social Security, 1980. 187pp.

An original feature of the 'Best Buy' hospitals designed by the Department of Health

and Social Security was the provision of a centralized suite of treatment rooms. An initial study indicated advantages to patient care in having dressings and clinical procedures together so the feature continued in the 'Nucleus' hospitals. This extended study shows that ward-based treatment rooms are under-utilized and there may be staffing and revenue savings in using shared services. Capital cost is certainly less if treatment facilities are centralized and, although not all staff supported the concept, there was a favourable response from patients.

OPERATING SUITES

See also Abstract Nos. 1218-1220, 1291, 1292

1322. BAALMAN, V. F. J. Organisatie op de operatie-afdeling. **[Organization of the operating theatre unit.]** *Ziekenhuis*, Utrecht, 1980, June 4, vol. 10, no. 11, pp. 340, 341.

The number of operations carried out in an operating unit is determined by the numbers of surgeons, nurses, anaesthetists and operating theatres. It was found that one surgeon always working in the same theatre with the same team lost considerable time in waiting between operations, though the team was fully occupied. This loss of time could be shortened by making more staff and theatres available. Two teams for one surgeon shortened his waiting time by 10 to 15 minutes, two teams and two theatres by approximately 25 minutes. The optimal balance depends on length of operations and the operating programme. In practice a balance of three surgeons, four anaesthesia teams, four nursing teams and five theatres proved a good solution. The system, however, can only be brought in under certain conditions, for instance the teams must be trained all round to assist at any specialty and theatres must be designed and equipped to take operations for many specialties. Disadvantages of the system are its complexity, the difficulty of timing the length of an operation in advance, and of leaving little room for emergency cases. Another way to shorten waiting times is to engage non-nursing, but trained staff for patient transport and theatre cleaning.

ANAESTHESIA

See also Abstract No. 1340

1323. BASKETT, Peter J. F. **Uses of anaesthesia: the anaesthetist in the accident and emergency service.** *British Medical Journal*, London, 1980, July 26, vol. 281, no. 6235, pp. 287-289.

The basic training of the anaesthetist in the operating theatre is orientated towards secure airway control, artificial ventilation, monitoring and support of the circulation, and the relief of acute pain. It is precisely these skills that are essential in managing the suddenly ill and seriously injured patients cared for by the accident and emergency services and departments. His particular roles in pre-hospital care, the obstetric flying squad, the accident and emergency department, major disasters, and the hospital cardiac arrest service is outlined. The variety of patients seen in this work is also discussed.

1324. OGG, T. W. **Use of anaesthesia: implications of day-case surgery and anaesthesia.** *British Medical Journal*, London, 1980, July 19, vol. 281, pp. 212-214.

This paper discusses the organization and pre-operative, intra-operative and post-operative aspects of day-case surgery, with particular reference to anaesthesia. As a result of this discussion it considers the following guidelines to be essential for safe day-case surgical and anaesthetic practice: (i) day-case surgery should not be a second-class service; (ii) separate day units should be established; (iii) senior hospital staff must co-operate; (iv) efficient pre-operative screening is essential; (v) more research into simple anaesthetic techniques should be performed; (vi) the recovery period must have a low morbidity; and (vii) co-operation among the patient, hospital consultants, general practitioners and community nursing services is essential for the project to succeed.

PHARMACY

1325. COARSE, James F. and KUBICA, Anthony J. **Hospital pharmacy indexes: a tool for assessing purchasing and inventory control performance.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, June, vol. 37, no. 6, pp. 837-843.

Although many new and innovative approaches to cost containment in supplies management are being developed, effective techniques must distinguish explicitly the differences between the effects of price and volume changes on costs. This paper describes the formulation and implementation of one such technique, indexes, in the hospital pharmacy. Conventional price indexes are inadequate for this purpose. Two indexes are chosen: a price index to measure variations in the acquisition cost of supplies; and a value index to measure the effect of both acquisition cost and volume variations. To construct a price index it is necessary to: (i) compile a representative list of drug products; (ii) assign appropriate weights (quantity determinants) to the listed products; (iii) select a base period that reflects normal hospital operations; and (iv) select a suitable equation, in this case a fixed-weight aggregates method. The value index can be calculated when the acquisition cost change for the period is known. Information derived from the indexes can be used in: (i) cost analysis and operational forecasts; (ii) measurement and assessment of purchasing and inventory control; and (iii) simplification of procurement and inventory processes.

1326. HOFFMAN, Dennis M. **The handling of antineoplastic drugs in a major cancer center.** *Hospital Pharmacy*, Hagerstown, Md., 1980, June, vol. 15, no. 6, pp. 302-304.

It is well-documented that many frequently used antineoplastic agents are carcinogenic. There is no evidence at present that persons working with these drugs are at any greater risk of developing cancer than is the general population, but it is prudent to take precautions to protect staff and the environment. The policies and procedures adopted at the Memorial Sloan-Kettering Cancer Center, New York, are presented. The precautions include: preparing doses in a vertical laminar flow containment hood; wearing disposable gloves; special labelling; and segregated disposal of waste.

LABORATORIES

See also Abstract Nos. 1228, 1299, 1305

1327. COLLINS, C. H. **Microbiological hazards—pathogenic organisms in the hospital laboratory.** *Laboratory Practice*, London, 1980, Aug., vol. 29, no. 8, pp. 835-838.

Although only 17 per cent of laboratory-acquired infections occur in hospital laboratories, it is necessary to study the problem and take reasonable, but not excessive or hysterical precautions. Laboratory staff are exposed to infection when micro-organisms escape into the environment from the vessels in which they are grown or are stored. A study has shown that only about 20 per cent of laboratory infections could be connected with known accidents; the possible role of aerosols is discussed. Official United Kingdom, United States and World Health Organization systems for classifying micro-organisms according to hazard are outlined. These have led to a general agreement that there should be three kinds of laboratory based on the level of infection containment required: basic, containment, and maximum containment. Prevention involves the erection of barriers between the organisms and the operators: (i) primary, around the organisms and largely created by techniques and equipment; and (ii) secondary, around the worker and erected by good hygiene, protective clothing, suitable immunization and, where necessary, medical surveillance.

1328. BROWN, S. S. **General aspects of safety in hospital laboratories.** *Laboratory Practice*, London, 1980, June, vol. 29, no. 6, pp. 625-627.

The layout and the type of work of any laboratory has an important bearing on the hazards which arise. Safety precautions are the responsibility of all levels of laboratory staff. Good organization of the laboratory working areas and of storage areas is necessary if chemical accidents are to be avoided. Equipment should be regularly checked and the inspection of fire appliances is essential. The storage and use of chemicals is a matter for constant care and all chemical reagents should be recalled periodically to a central store to avoid excessive storage near laboratory benches. Clear instructions for using compressed gases and hazardous chemicals should be kept near the place of use. The obligation on senior staff to report accidents and defects in equipment is helpful in drawing official attention to recurring problems. The training of laboratory staff in safety measures and updating their knowledge is the responsibility of line managers. This can be done by talks by experts and by films and handbooks. The appointment of laboratory safety officers has been recommended and several organizations have run courses on relevant topics. In a large hospital laboratory, a safety committee can be valuable in acquiring and disseminating safety information.

1329. **Microbiological safety cabinets: recommendations concerning their choice, installation, routine maintenance and use.** *Health Equipment Information*, London, 1980, June, no. 86, pp. 1-13.

After presenting the definitions of microbiological safety cabinets contained in British Standard 5726: 1979 and the *Code of practice for the prevention of infection in clinical laboratories and post mortem rooms*, this paper offers guidance on the choice of cabinet, siting and installation, filters, routine maintenance and testing, and use. Six diagrams and a specimen maintenance form are included.

DIAGNOSTIC X-RAY DEPARTMENT

See Abstract Nos. 1224, 1263

DEPARTMENTS FOR SPECIAL THERAPY

1330. L'hôpital thermal d'Uriage. **[Uriage hydropathic Hospital.]** *Gestions Hospitalières*, Paris, 1980, March, no. 194, pp. 257-258.

The 90-bed hydropathic hospital at Uriage, near Grenoble, was completed in 1978. All the rooms are either single or double, and each has a WC and basin, telephone, call bell, and balcony. The hospital has a radiology department and facilities for rehabilitation—gymnasium, balneotherapy, and occupational therapy. The majority of the patients suffer from rheumatic disorders but some also take the waters on account of psoriasis or ear, nose and throat infections. The baths, which belong to a private establishment, are open from March to October; during this period the hospital tries to reserve 60 beds for patients who have come to take the waters. The hospital has a staff of nine administrative personnel, four doctors, one pharmacist, 37 nursing and domestic staff, three physiotherapists, and one radiographer.

1331. LEWANDOWSKI, Linda A. and KRAMER, Marlene. **Role transformation of special care unit nurses: a comparative study.** *Nursing Research*, New York, 1980, May/June, vol. 29, no. 3, pp. 170-179.

A bicultural orientation programme, designed to help new graduate nurses to adapt their school-bred ideals of nursing to the working environment, produced effective role transformations. The programme was the same for all nurses, regardless of the unit on which they worked. Specialized orientation programmes could be devised for nurses working on special units if it was known whether they have similar or different characteristics and whether their role transformations encounter similar or different difficulties. Answers to these questions in respect of nurses in special care units were sought in a study of 213 new graduate nurses in their first jobs in eight medical centres across the United States. The nurses worked in one of four areas; medical and/or surgical; medical-surgical specialty; parent-child nursing; or special care (intensive care, coronary care and neonatal intensive care). Nurses working on units which required the most specialization had significantly higher increases in bicultural scores and self-esteem and trends towards higher increases in bureaucratic role conception and higher performance ratings. However, special care unit nurses also had the most decrease in professional role conception scores, least increase in self-actualization scores, least amount of empathy with co-workers, and least amount of effective change-agent activity—all undesirable occurrences.

INTENSIVE CARE UNITS

See Abstract Nos. 1212, 1243, 1265

SPECIALIZED HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract No. 1268

1332. EDELIST, G. and URBACH, G. **Organization of the out-patient surgical facility.** *Canadian Anaesthetists' Society Journal*, Toronto, Ont., 1980, July, vol. 27, no. 4, pp. 406-408.

Out-patient surgical facilities fall into three main categories: (i) the elective out-patient surgical unit found within a hospital, but with independent facilities; (ii) the elective out-patient surgical unit found within a hospital but integrated with in-patient surgery; and (iii) the independent, free-standing, out-patient surgical centre. The factors involved in the organization of any of the three types are common, although their advantages and disadvantages will differ. These factors are: physical organization; types of operations; choice of patient; and recovery and discharge. This paper is mostly concerned with the first type of facility, using the unit at Mount Sinai Hospital, Toronto, as an example.

CASUALTY AND ACCIDENT

See also Abstract Nos. 1314, 1323, 1350

1333. MAGNUSSON, Gudjon. **The role of proximity in the use of hospital emergency departments.** *Sociology of Health and Illness*, London, 1980, July, vol. 2, no. 2, pp. 202-214.

Studies from several countries have shown that greatly increased use of hospital emergency departments has caused considerable strain on the emergency services. Proposed reasons may be grouped in three main categories: organizational, attitudinal and medico-legal. Using record linkage a study was made of a sample of visits to Huddinge Hospital, Stockholm, emergency department, during the period January 1976 to March 1977. Of the catchment area population of 17,004, 4,927 (29 per cent) made 9,632 visits. The results showed that use of the emergency department was inversely proportional to the travelling distance to it. There was a significant and positive correlation between emergency visiting rates and the use of in-patient and out-patient facilities. The implications of these results for the planning and location of resources are discussed.

DAY HOSPITALS

See also Abstract No. 1324

1334. PALMIERI, L. "Day hospital in struttura" or 'day hospital funzionale"? **[A structural day hospital or a functional day hospital?]** *Rivista degli Ospedali*, Roma, 1980, May/June, vol. 12, no. 3, pp. 193-194.

In the Italian health service a 50-bed day hospital may only operate where there is a

catchment area of 50,000 to 200,000 inhabitants. The author believes however, that 10 to 30 per cent of the beds in every hospital could be used on a day hospital basis for diagnosis, treatment and rehabilitation. He suggests that doctors in the smaller and medium-sized hospitals should be able to decide whether a patient should be admitted to his unit on an in-patient or day-hospital basis; in this way any hospital could have a structural day hospital.

1335. SHAH, Chandrakant P. **Day-care surgery in Canada: evolution, policy and experience of provinces.** *Canadian Anaesthetists' Society Journal*, Toronto, Ont., 1980, July, vol. 27, no. 4, pp. 399-405.

Day care, or out-patient, surgery for minor procedures is now an accepted and established alternative to conventional in-patient surgery. This paper outlines the evolution of day care surgery in Canada, present policies and experiences in various provinces, and implications for hospital costs. All the provinces have day care surgery programmes. British Columbia has a highly developed province-wide programme accounting for about 27 per cent of all operations; approximately 44 per cent of all operations in British Columbia could be done in day care. Extrapolation of these figures nationally for the year 1975 indicates that Canadians could have saved approximately $209 million in hospital care for all the 25 procedures most commonly done by day care surgery. Further, if five other procedures which are suitable for day care surgery had been so managed, there would have been a further potential saving of $62 million. Apart from economic justification, day care surgery provides high quality care and is acceptable to patients and providers.

INFECTIOUS DISEASES AND ISOLATION

See also Abstract No. 1213

1336. SELWYN, Sydney. **Protective isolation: what are our priorities?** *Journal of Hospital Infection*, London, 1980, March, vol. 1, no. 1, pp. 5-9.

Segregation of infected individuals—source isolation—has been a recognized practice for at least 4,000 years. In contrast, segregation of uninfected but susceptible patients—protective isolation—is of relatively recent origin. There is general agreement about acceptable forms of accommodation and nursing procedures for source isolation, but far more controversy surrounds all aspects of protective isolation. Highly efficient protective isolation could be expected to prevent more than half of the infections encountered on general wards. Prevention of the remainder will depend on the use of various 'decontamination' procedures. In most hospitals the only facilities for nursing susceptible patients are single rooms or side rooms off general wards. All too often only the open ward is available. Three main types of more sophisticated protective isolation accommodation are available: (i) single room with positive pressure ventilation; (ii) 'air curtains' in multi-bedded wards; and (iii) plastic tent isolation or 'life-island'. A strict isolation regime must be supplemented by the use of suitable antibiotics and disinfection measures. These procedures impose a potentially enormous demand on financial and staff resources; the question of priorities is discussed.

CHILDREN

See also Abstract Nos. 1240, 1248, 1309, 1317

1337. BINGLEY, L. and others. **Comprehensive management of children on a paediatric ward: a family approach.** *Archives of Disease in Childhood*, London, 1980, July, vol. 55, no. 7, pp. 555-561.

Physical illness in a child, especially if chronic, affects the whole family; conversely, emotional conflict within a family may lead to illness in at least one child. If family conflict is a cause of a child's symptoms or if it is responsible for maintaining them, family therapy is indicated. A team approach in the comprehensive management of children on a general paediatric ward is described. The ward contains 20 beds with eight cubicles which can accommodate parents; the family can visit at any time. The team includes paediatricians, a psychiatrist, nurses, a social worker, a psychologist, a play-leader and teachers. The team meets each week for about 90 minutes under the chairmanship of the psychiatrist to discuss the social and emotional needs of all the children on the ward. The psychiatrist and social worker join the paediatricians for a full ward-round at least once and occasionally twice a week. The team approach is based on the principles of family therapy, but it also uses other forms of therapy, such as behavioural, marital and individual. The first year's work of the team is reviewed.

CANCER

1338. BAJETTA, E. and others. Piano operativo per l'oncologia medica in Lombardia. **[Operative plan for oncology in Lombardy.]** *Rivista degli Ospedali*, Roma, 1980, May/June, vol. 12, no. 3, pp. 195-202.

Proposals for the expansion of the oncological health care delivery structure in Lombardy in the short and medium term are presented. Out-patient treatment is often sufficient for cancer patients and in many cases it is superior to in-patient treatment. It is therefore proposed that seven combined in-patient, day hospital, and out-patient units be established, five day hospital and out-patient units, and 15 out-patient units. This would give a total of 451 beds plus 41 day hospital beds for a population of 4,100,000. A team of 57 oncologists would be required.

RHEUMATISM

See Abstract No. 1330

UROLOGY

1339. EXNER, M. and others. Hygienische und klinische Aspekte zur Qualitätsbeurteilung geschlossener Harnableitungssysteme. **[Hygienic and clinical aspects of the quality assessment of closed urinary drainage systems.]** *Krankenhaus*, Stuttgart, 1980, July, vol. 72, no. 7, pp. 258-262.

There is on the German market a profusion of different closed urinary drainage systems making it difficult for doctors and administrators to decide which system to

prefer. This paper presents an objective assessment resulting from experiments with 10 of these systems which is set out in the form of a table. Only four of the 10 were shown to ensure the sterility of an artificial bladder throughout the period of the experiment. The criteria for assessing the hygienic and clinical quality of a closed urinary drainage system are laid down.

SURGERY

See Abstract Nos. 1293, 1332, 1335

MATERNITY

See also Abstract No. 1243

1340. CRAWFORD, J. Selwyn. **Use of anaesthesia: anaesthetists in the obstetric department.** *British Medical Journal*, London, 1980, July 12, vol. 281, no. 6233, pp. 119, 120.

Five major areas of potential involvement of anaesthetists in obstetrics are discussed: (i) the administration of anaesthesia for obstetric surgery; (ii) consideration of systems for relieving pain; (iii) neonatal resuscitation; (iv) intensive care of the seriously ill mother; and (v) intensive care of the seriously ill infant. The anaesthetist also has responsibilities as an administrator, not the least of which is that of supervising the maintenance of informative clinical records.

1341. BARTON, John J. and others. **Alternative birthing center: experience in a teaching obstetric service.** *American Journal of Obstetrics and Gynecology*, St. Louis, Mo., 1980, June 1, vol. 137, no. 3, pp. 377-384.

The concept of the alternative birthing centre (ABC) as an in-hospital, family-centred birthing programme has developed in response to several factors influencing current trends in the delivery of obstetric care. A comprehensive ABC was opened at the 620-bed Illinois Masonic Medical Center, Chicago, on 1 March 1980, as an integral part of the conventional obstetric suite. Its physical facilities and staffing, and the selection and screening of patients are described. The 218 patients admitted in the first year are reviewed. The ABC has proved to be a safe and efficacious method of providing a true alternative to high technology obstetric care to those carefully screened, low-risk patients who choose this form of childbirth experience. However, the high transfer rate (23.8 per cent) and substantial caesarean birth rate (9.17 per cent) demonstrate the need for immediate availability of conventional facilities. The low incidence of neonatal morbidity shows that the ABC is a safe environment for the neonate. Acceptance and use of the ABC by patients and staff is rapidly increasing as it is demonstrated to be a safe alternative to birth in a conventional delivery suite or home delivery.

1342. HERN, Warren M. and CORRIGAN, Billie. **What about us? Staff reactions to D & E.** *Advances in Planned Parenthood*, Princeton, N.J., 1980, vol. 15, no. 1, pp. 3-8.

United States statistics are beginning to suggest that dilation and evacuation (D & E)

may have important advantages for the patient experiencing a second-trimester abortion. However, significant emotional reactions of medical and counselling staff tend to accompany this procedure. For the study reported, 15 present and former staff members of a small out-patient abortion clinic completed a questionnaire followed by an interview. All the respondents were asked to describe various reactions to the D & E procedures. A follow-up study was conducted one year later. There was clear agreement that D & E is qualitatively a different procedure, medically and emotionally, from early abortion. Many of the respondents reported serious emotional reactions that produced physiological symptoms, sleep disturbances, effects on interpersonal relationships, and moral anguish. The study attempts to evaluate these reactions in the context of the reports of the medical advantages of D & E.

DENTISTRY

See Abstract No. 1349

PSYCHIATRY

See also Abstract Nos. 1280, 1319

1343. JACOBS, D. Patiëtenraden in psychiatrische centra. **[Patient councils in psychiatric hospitals.]** *Ziekenhuis*, Utrecht, 1980, June 18, vol. 10, no. 12, pp. 364-368.

This paper is based on the results of a survey among 30 hospitals, 19 of which had, under various names, some form of patient council with some rules. The emergence of councils seemed in line with modern ideas of democratization with patients participating as treatment partners, having legal rights, promoting their interests and banding together with each other. Patient councils should grow from small units within the hospital and not be imposed from above, and thus a wide range of structures and status could be found. Recognition requires some form of legal status, which does not yet exist. To achieve a balanced composition of council members proved difficult, as interests differed among groups such as long and short-term patients or young and old. Some opposition came from hospital authorities, who feared too much influence for the council, and from patients who feared domination by council members over others. Election was generally carried out per unit or department, age group, therapy group, etc. An officially issued model set of rules is expected in the future, detailing meetings, quorum, responsibilities, etc. Financing proved difficult and came mainly from voluntary contributions, but there are hopes of some support from the hospital or public funds. Councils hope to publish magazines, hold meetings, make outside visits, and eventually form a national federation.

1344. COTTON, Paul G., BENE-KOCIEMBA, Alice and STARKER, Lynn. **A mental health center's aftercare specialty service for discharged state hospital patients.** *Hospital and Community Psychiatry*, Washington, D.C., 1980, June, vol. 31, no. 6, pp. 397-400.

The ambulatory community service at Cambridge—Somerville Mental Health and Retardation Center, Cambridge, Mass., was started in July 1973 to help state psychiatric

hospital patients in their reintegration into the community. The service is staffed primarily by mental health workers and nurses who become members of the neighbourhood-based teams in the hospital unit and take part regularly in discharge planning with patients and staff. They also provide a range of continuing out-patient and support services, including development of housing placements, financial support, medication review, psychiatric follow-up, employment assistance, and recreational activities. The service operates as a specialized, autonomous unit, which allows it to transfer staff resources in line with changes in patient and programme needs, to allocate time for programme development, and to pressure other agencies to develop needed services.

1345. Vos, A. de. Functionele en organisatorische vernieuwingen in het therapeutisch beleid van een psychiatrische kliniek. **[Functional and organizational changes in the therapeutic management of a psychiatric hospital.]** *Hospitalia*, Brussel, 1980, Jan./March, vol. 80, no. 1, pp. 15-18.

Twenty years ago, at the 'Onze Lieve Vrouwe' Psychiatric Hospital, Brugge St. Michiels, a therapeutic staff of 30 (nursing staff, two doctors, a psychiatrist, a psychologist and a social worker) cared for more than 700 patients. By the end of 1979 the number of staff had grown to 220 (nursing staff, two doctors, five psychiatrists, psychologists, social workers, therapists, etc.) for approximately 600 patients, and the need arose for a more efficient, co-ordinated system. In September 1979 re-organization was started by dividing the therapeutic work into four sectors. Within the sectors, sub-groupings were made; the new system is organized to centre around the patient. The sectors are: (i) accommodation, which concerns short and long-term stay departments, ambulant and bed patients; (ii) therapeutic centres, concerned with patients' activities and responsible for day programmes of groups of patients; (iii) services, which include various forms of therapeutic, social, and medico-technical treatment; (iv) guidance, which includes treatment teams, psychiatrists and psychologists. Each sector is discussed in detail, as is the organizational hierarchy which comprises basic departmental treatment teams, co-ordinating teams and hospital management. The paper discusses communication channels such as regular meetings, and the composition of teams with descriptions of their functions, autonomies and responsibilities.

1346. ROBERTS, William L. **A study of utilization by hospitals of families of hospitalized psychiatric patients on three continents.** *International Journal of Social Psychiatry*, London, 1980, vol. 26, no. 2, pp. 124-128.

A study was carried out in eight publicly-supported psychiatric hospitals in Asia, Australia and Europe to determine some of the practices relating to the use of families in treatment of mentally ill persons in different parts of the world. Information was obtained from hospital records and staff on the first five patients between 18 and 55 years of age who were admitted after midnight on the date three months prior to the on-site visit to the hospital (between November 1971 and February 1972). A follow-up study by mailed questionnaire was carried out three years later and involved five new patients in each hospital; only five of the hospitals responded. The relatives of 64 per cent of the patients were seen by the staff; 52 per cent of those interviewed were seen by physicians. Since social workers' training and experience is geared towards

understanding the person in his social context, it is recommended that additional social workers be employed. Indigenous non-professionals should also be trained to enhance the interaction between the patient, his relatives, the hospital staff and the community.

1347. McCarthy, Mark and Bewley, Thomas H. **Patients working out from a psychiatric hospital.** *International Journal of Social Psychiatry*, London, 1980, vol. 26, no. 2, pp. 129-134.

Although outside employment has been a recognized method of rehabilitating psychiatric patients for over 25 years in the United Kingdom, virtually nothing has been written about it. The file cards and hospital records of male patients 'working out' from Tooting Bec Hospital, South London, were used for this study. Outside employment was obtained by 630 patients who had 1,447 admissions between 1963 and 1969. This group were compared with all male patients admitted to the hospital during the same period and with a national sample from the Mental Health Enquiry for 1969. The working patients had 827 spells of employment working for 742 employers, 75 per cent of whom had employed only one patient for one spell of employment. A quarter of all male patients under 65 had worked out from the hospital over the seven years, approximately 90 out of 320 new admissions annually. This group were the younger patients admitted. The most frequent length of employment before discharge was one to four weeks. Patients with the diagnosis of alcoholism (the largest group in the sample) had shorter admissions and working out periods than those with schizophrenia. The value of 'working out' is discussed.

1348. Schär, W. Führungsprobleme in psychiatrischen Kliniken. **[Leadership problems in psychiatric hospitals.]** *Schweizer Spital*, Aarau, 1980, vol. 44, no. 2, pp. 35-37.

To the many deficiencies and problems facing psychiatric hospitals in Switzerland the author adds another: management organization. If the requirements of modern psychiatry are to be met three developments are needed: better motivation of the staff; more staff participation in decision making; and more co-operation between senior and junior staff. Traditionally, the medical director is responsible for the hospital as a whole, but this is changing and in some cantons the medical superintendent and the chief administrator have an equal share in management. For the future the author envisages a tripartite leadership: medical, administrative and nursing. In his own hospital (the Wil Cantonal Psychiatric Hospital) the two medical superintendents, the doctor for social psychology and the administrative director are of equal standing and report to the hospital directorate. There is also an additional body to deal with special tasks and problems with the following membership: senior medical representatives; the administrative director; the medical officer for social psychology; two senior nurses; the personnel manager and the education officer.

1349. Pickard, R. G. and Grigel, Michael A. **Provision of preventive dentistry in the hospital environment.** *Journal of the American Dental Association*, Chicago, Ill., 1980, June, vol. 100, no. 6, pp. 881-883.

A programme of preventive dentistry has been provided in Salem (Va.) Veterans Administration Medical Centre for 3½ years. It has made use of the interpersonal

exchange of ideas in small groups using closed-circuit television, flip charts, overhead transparencies, discussions and teaching films in cassette form. One-to-one counselling was conducted regularly. It had proved successful with some patients, but was not reaching enough patients. This paper is largely concerned with the separate programmes developed for: patients receiving treatment for alcoholism; psychiatric patients; and geriatric or elderly debilitated patients.

1350. PULLEN, Ian. **Description of an extramural service for psychiatric emergencies** *Health Bulletin*, Edinburgh, 1980, July, vol. 38, no. 4, pp. 163-166.

The Royal Edinburgh Hospital provides a comprehensive psychiatric service for the city of Edinburgh. Since 1 May 1978 each general practitioner telephoning for an urgent out-patient appointment has been offered a home visit by an emergency team and invited to attend if at all possible. Patients arriving unannounced at the hospital are seen in the out-patient department in the standard way. The teams consist of a registrar plus either a charge nurse or a senior social worker. The service is manned by existing sector staff, the only additional cost being the payment of travelling expenses for home visits. Where possible the teams use crisis intervention counselling techniques. The family is actively involved from the start. During the first year 112 patients were seen at home, 42 per cent of all daytime north-west sector emergencies. The major effect of the scheme was that where it was possible to see patients at home, fewer needed to be admitted. It is suggested that a limited service to visit at home those patients most likely to benefit from this type of approach could be offered by less well staffed hospitals.

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